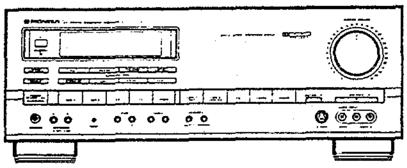
PIONEER
The Art of Entertainment

Service Manual



ORDER NO.
ARP2560

AV DIGITAL SURROUND AMPLIFIER

VSA-D801S
VSA-701S

VSA – D801S AND VSA – 701S HAVE THE FOLLOWING :

Type	Model		Power Requirement	Remarks
	VSA – D801S	VSA – 701S		
SD	○	○	AC110V, 120V – 127V, 220V, 240V (Switchable)	
HE	—	○	AC220 – 230V, 240V (Switchable)*	
HB	—	○	AC220 – 230V, 240V (Switchable)*	

* Change the connection of the power transformer's primary wiring.

- This manual is applicable to the following : VSA – D801S/SD and VSA – 701S/SD.
- For VSA – 701S/SD, refer to page 87.
- For the following : VSA – 701S/HE and HB, refer to the service manual ARP2561 for VSA – 701S.
- Ce manuel pour le service comprend les explications de réglage en français.
- Este manual de servicio trata del método ajuste escrito en español.

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1. EXPLODED VIEWS, PACKING AND PARTS LIST

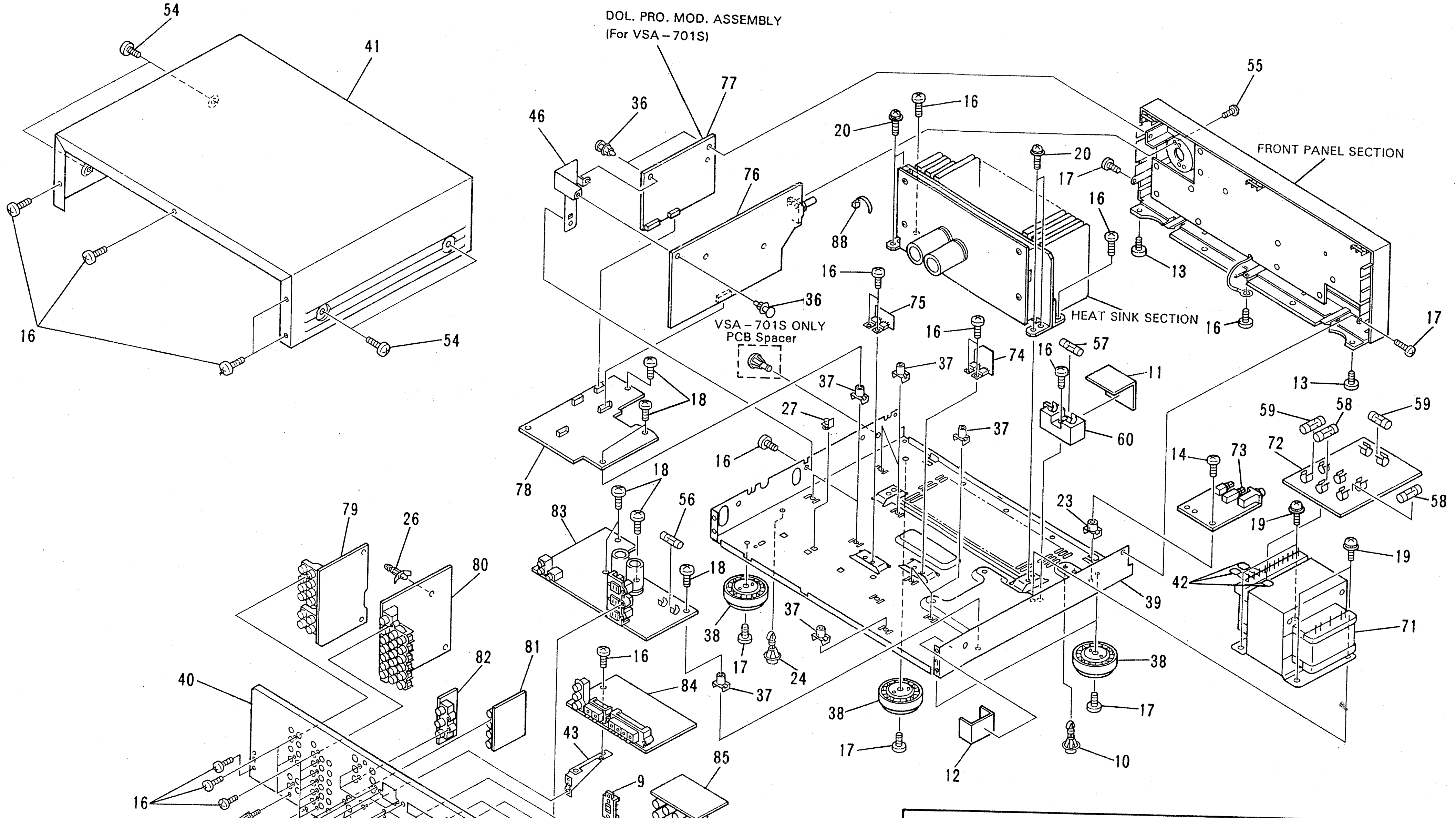
NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts list of Exterior and Packing

Mark	No.	Description	Parts No.
	1	MASTER VOL ASSY	AAB1119
	2	BALANCE BUTTON	AAD2282
	3	ACRYLIC PANEL	AAK2312
	4	SP BUTTON (PLS)	AAD2211
	5	FL FILTER	AAK2313
	6	PANEL BASE	AMB2003
⚠	7	VOLTAGE SELECTOR (S1)	AKX-507
⚠	8	VOLTAGE SELECTOR (S2)	AKX1004
	9	VOLTAGE SELECTOR (S3)	AKX1004
NSP	10	SPACER	AEC1360
NSP	11	BARRIER (PVC)	AEC1412
NSP	12	BARRIER (PVC)	AEC1440
	13	SCREW	ABA1006
	14	SCREW	ABA1024
	15	NAME PLATE (METAL)	AAM1029
	16	SCREW	ABA-298
	17	SCREW (STEEL)	ABA1009
	18	SCREW	ABA1018
	19	SCREW (STEEL)	ABA1053
	20	SCREW	ABA1054
	21	SCREW	ABA1082
⚠	22	AC POWER CORD	ADG1051
NSP	23	PCB MOULD	AMR2115
NSP	24	PCB HOLDER	AEC1097
	25	MICA SHEET	AEC1140
NSP	26	PCB SUPPORT	AEC1215
NSP	27	PCB HINGE	AEC1407
	28	MICA SHEET	AEE1014
⚠	29	CORD STOPPER	AEC-882
NSP	30	ALKALINE (LR6, AA)	AEX1007
	31	FRONT REAR PAD	AHA1503
	32	PACKING CASE	AHD2287
	33	PACKING SHEET	AHG1021
NSP	34	TERMINAL SCREW	AKE-031
	35	FRONT PANEL	ANB1518
	36	RIVET (PLASTIC)	AMR1066
NSP	37	PCB MOULD	AMR1525
	38	FOOT	AMR2414
NSP	39	CHASSIS	ANA1178
NSP	40	REAR PANEL	ANC1898
	41	METAL BONNET (MTL)	ANE1373
⚠	42	MYLAR CAPACITOR (C15-C17)	CQMA104K250
NSP	43	PCB HOLDER A	ANG-516
NSP	44	SUB TRANS HOLDER	ANG1393
NSP	45	POWER ASSEMBLY HOLDER -F	ANG1575
NSP	46	PCB HOLDER	ANG1670
NSP	47	POWER ASSEMBLY HOLDER -R	ANG1683
NSP	48	HEAT SINK	ANH1379
	49	OPE. INSTRUCTIONS (ENGLISH)	ARB1382
	50	....	
◉	51	FL. U-COM ASSEMBLY	AWK1552
	52	REMOTE CONSOLE UNIT (CU-VSA019)	AXD1271
	53	SCREW	BPZ26P080FMC
	54	SCREW	FBT40P060FZK
	55	SCREW	VMZ30P060FCU
⚠	56	FUSE (4A, FU1)	AEK-125
⚠	57	FUSE (4A, FU2)	AEK-125
⚠	58	FUSE (4A, FU3, 4)	AEK-125
⚠	59	FUSE (1.25A, FU5, 6)	AEK-120
⚠	60	FUSE HOLDER	AKR1001
⚠	61	TRANSISTOR (Q1)	2SC3281
⚠	62	POWER TRANSISTOR (Q10)	2SA1803
⚠	63	TRANSISTOR (Q2)	2SC3281
⚠	64	TRANSISTOR (Q3)	2SA1302
⚠	65	TRANSISTOR (Q4)	2SA1302
⚠	66	TRANSISTOR (Q5)	2SC3182N
⚠	67	TRANSISTOR (Q6)	2SA1265N
⚠	68	POWER TRANSISTOR (Q7)	2SC4688
⚠	69	POWER TRANSISTOR (Q8)	2SC4688
⚠	70	POWER TRANSISTOR (Q9)	2SA1803
⚠	71	POWER TRANSFORMER (T1)	ATS1427
NSP	72	TRANS TERMINAL ASSEMBLY	AWZ4268
◉	73	SP SW ASSEMBLY	AWZ4289
◉	74	REG (5.6V) ASSEMBLY	AWZ4267
◉	75	REG (12V) ASSEMBLY	AWZ4266
◉	76	VOLUME ASSEMBLY	AWZ4387
◉	77	DSP ASSEMBLY	AWZ4294
◉	78	CONNECTION ASSEMBLY	AWZ4385
◉	79	AUDIO FUNCTION ASSEMBLY	AWZ4383
◉	80	A/V FUNCTION ASSEMBLY	AWZ4384
	81	S TERM ASSEMBLY	AWQ1017
NSP	82	PRE OUT ASSEMBLY	AWZ4386
◉	83	POWER SUPPLY ASSEMBLY	AWZ4381
◉	84	REAR SP CENTER SP ASSEMBLY	AWZ4382
NSP	85	FRONT SP ASSEMBLY	AWZ4261
◉	86	AMP ASSEMBLY	AWZ4286
NSP	87	PCB HOLDER	ANG1726
NSP	88	BINDER	AEC-093

● EXTERIOR


54
41
16
54
DOL. PRO. MOD. ASSEMBLY
(For VSA－701S)
77
36
46
76
36
VSA－701S ONLY
PCB Spacer
88
20
16
20
17
16
55
FRONT PANEL SECTION
HEAT SINK SECTION
13
16
17
75
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18
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13
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72
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43
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85
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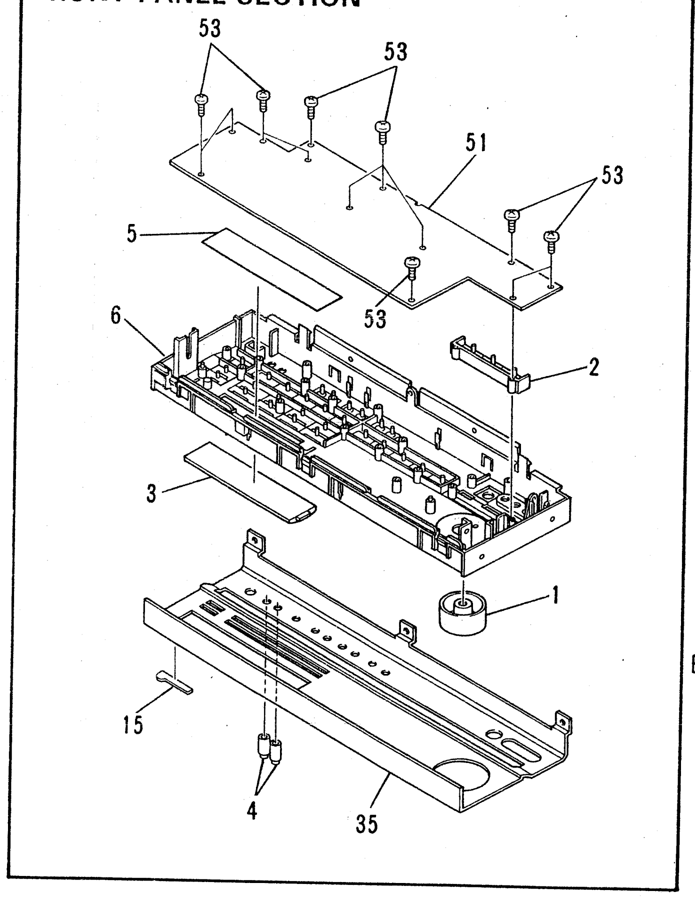
22

NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

FRONT PANEL SECTION


53
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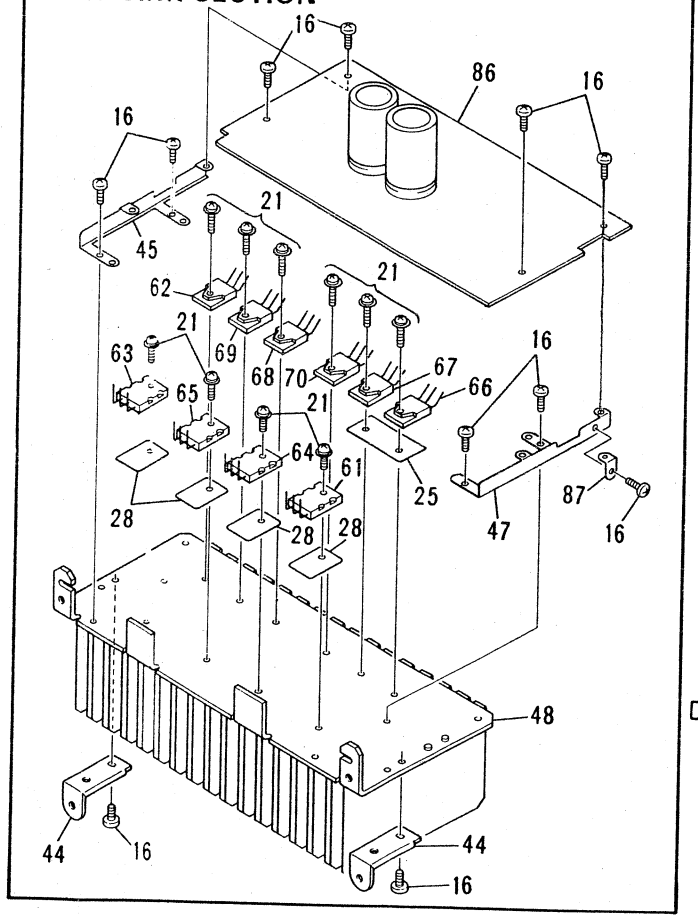
53
5
53
6
2
3
1
15
4
35

HEAT SINK SECTION


16
86
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45
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21
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68
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16
64
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87
16
48
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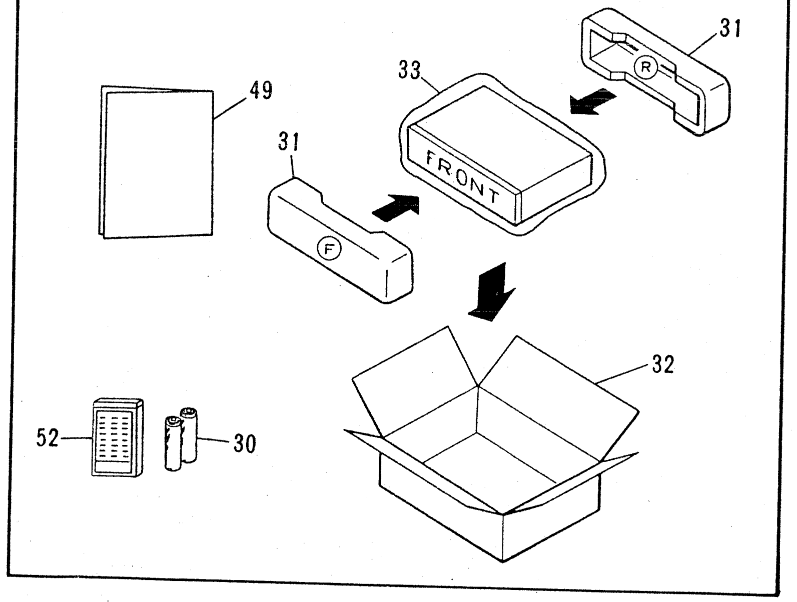
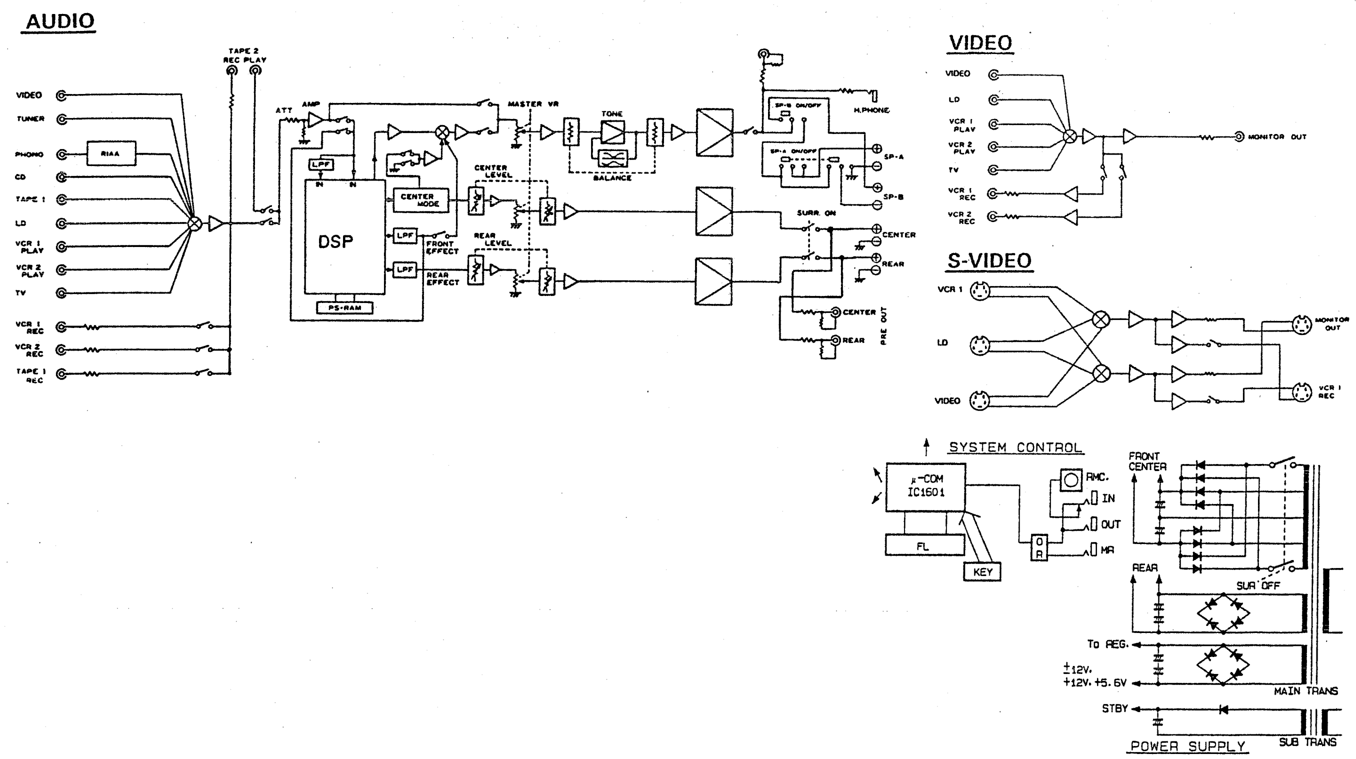
16
44
16

● PACKING

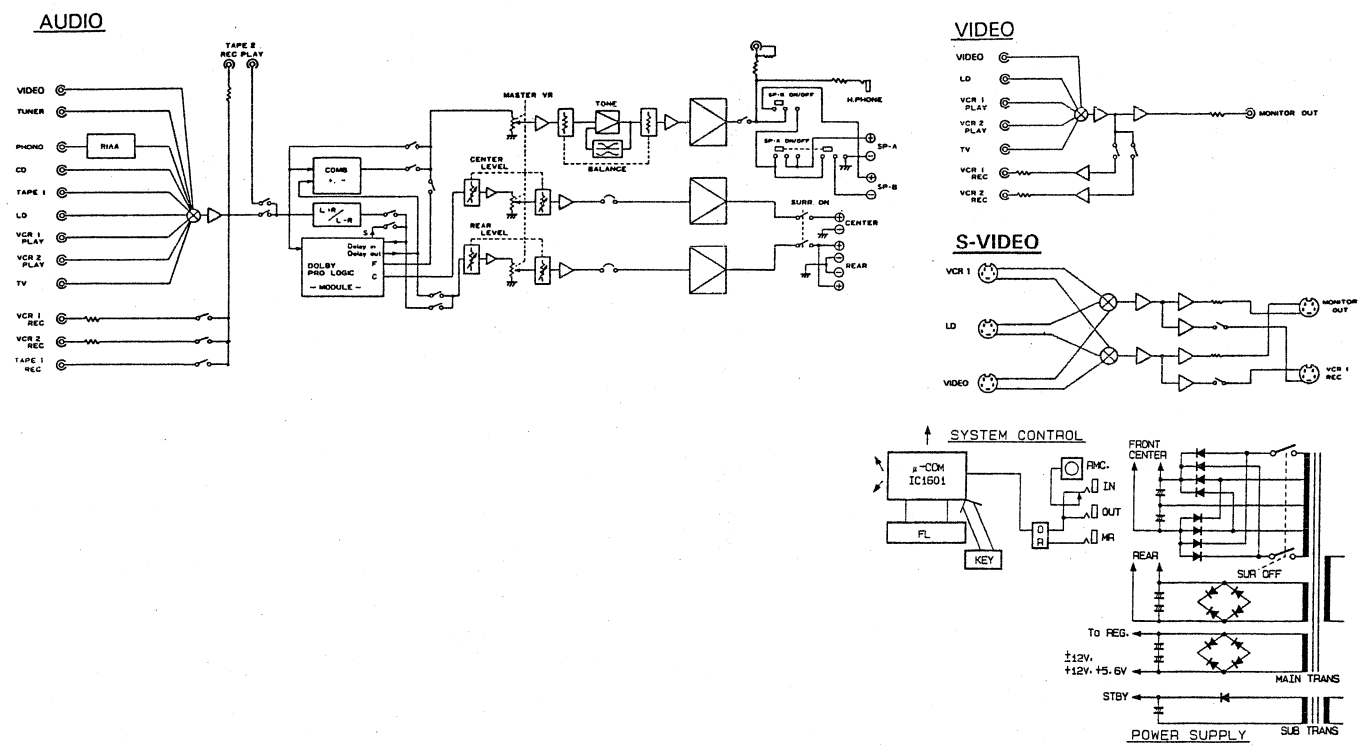

31
33
49
31
FRONT
R
F
32
52
30

2. BLOCK DIAGRAM

FOR VSA – D801S


AUDIO
VIDEO
TUNER
PHONO
CD
TAPE 1
LD
VCR 1 PLAY
VCR 2 PLAY
TV
VCR 1 REC
VCR 2 REC
TAPE 1 REC
TAPE 2 REC PLAY
RIAA
ATT
AMP
MASTER VR
TONE
BALANCE
CENTER LEVEL
CENTER MODE
REAR LEVEL
DSP
LPF
FRONT EFFECT
REAR EFFECT
PS-RAM
H.PHONE
SP-A ON/OFF
SP-B ON/OFF
SP-A
SP-B
SURR ON
CENTER
REAR
PRE OUT
VIDEO
MONITOR OUT
S-VIDEO
SYSTEM CONTROL
μ-COM IC1601
FL
KEY
RMC
IN
OUT
MR
FRONT CENTER
SUR OFF
To REG.
±12V
+12V, +5.6V
STBY
MAIN TRANS
SUB TRANS
POWER SUPPLY

FOR VSA – 701S


AUDIO
VIDEO
TUNER
PHONO
CD
TAPE 1
LD
VCR 1 PLAY
VCR 2 PLAY
TV
VCR 1 REC
VCR 2 REC
TAPE 1 REC
TAPE 2 REC PLAY
RIAA
MASTER VR
TONE
BALANCE
CENTER LEVEL
REAR LEVEL
COMB
L+R
L-R
S
Delay in
Delay out
DOLBY PRO LOGIC
– MODULE –
F
C
H.PHONE
SP-A ON/OFF
SP-B ON/OFF
SP-A
SP-B
SURR ON
CENTER
REAR
VIDEO
MONITOR OUT
S-VIDEO
SYSTEM CONTROL
μ-COM IC1601
FL
KEY
RMC
IN
OUT
MR
FRONT CENTER
SUR OFF
To REG.
±12V
+12V, +5.6V
STBY
MAIN TRANS
SUB TRANS
POWER SUPPLY

3. SCHEMATIC AND PCB CONNECTIONS DIAGRAMS

3.1 OVERALL SCHEMATIC DIAGRAM

Note: (Type 1)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**

2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**

3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.

4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.

5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.

6. **VOLTAGE AND CURRENT:**
   ▭V : Signal voltage at rated output.
   ▭ : DC voltage (V) at no input signal unless otherwise noted.
   Value in (   ) is DC voltage at rated power.
   ⇦ mA or ← mA : DC current at no input signal unless otherwise noted.

7. **OTHERS:**
   - ➡ : Signal route.
   - ⊘ : Adjusting point.
   - ▼ (Red) : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.

8. **SWITCHES** (Underline indicates switch position):

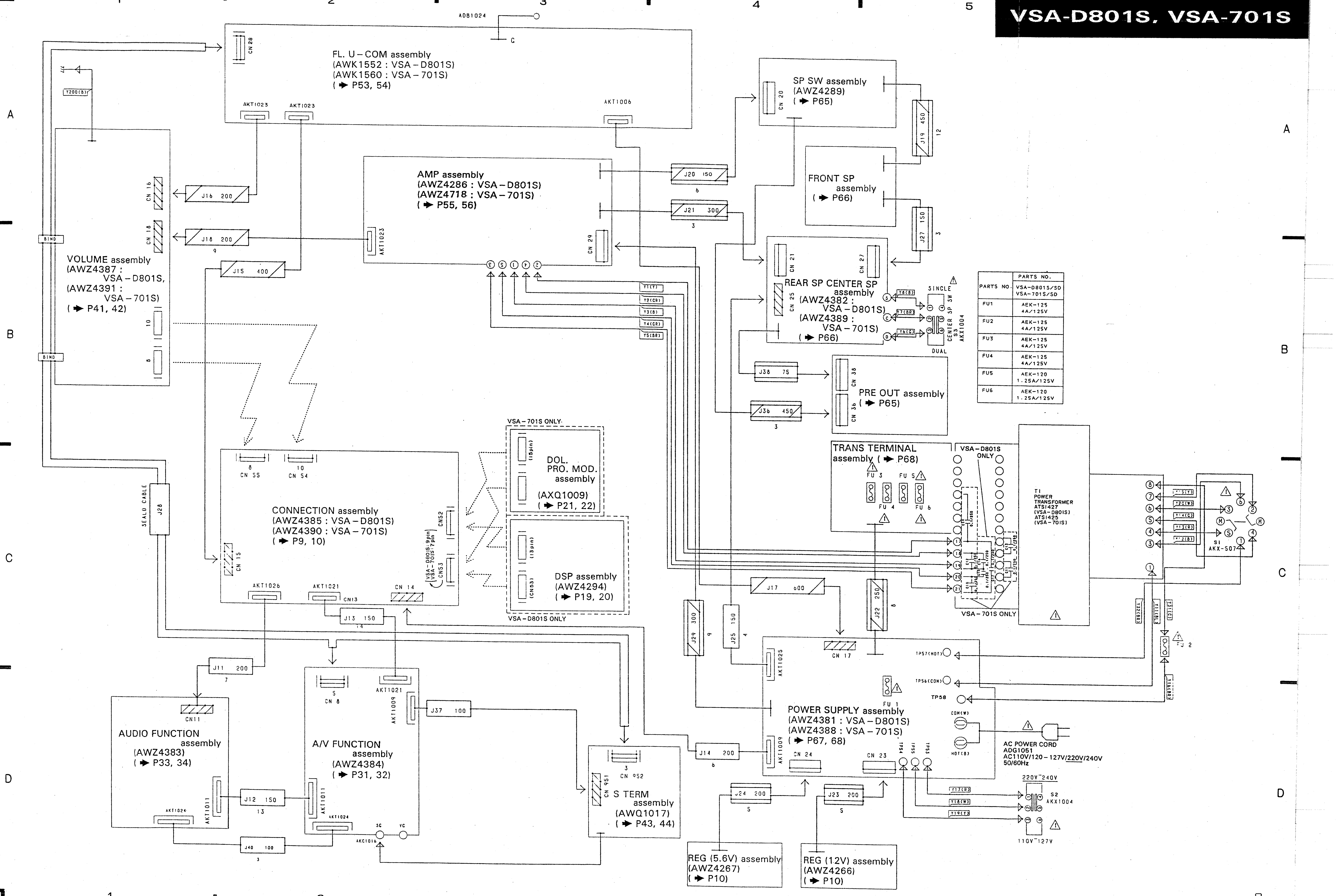
S1	LINE VOLTAGE SELECTOR AC110V/120−127V/220V/240V
S2	LINE VOLTAGE SELECTOR AC110−127V/220−240V
S3	CENTER SP SW SINGLE − DUAL

FL. U – COM assembly

S601	SIMULATED STEREO
S603	POWER
S605	THEATER (VSA – D801S) SIMULATED SURR. (VSA – 701S)
S609	PROLOGIC THEATER (VSA – D801S) STUDIO (VSA – 701S)
S614	VCR 1
S617	BASS DOWN
S618	VCR 2
S621	TREBLE DOWN
S622	LD
S625	PROLOGIC
S626	TV
S629	BALANCE LCH
S630	VIDEO
S634	TAPE 1/DAT
S637	BASS UP
S638	TAPE 2/MONITOR
S641	3CH LOGIC
S642	CD
S644	SIMULATED SURR. (VSA – D801S ONLY)
S645	TREBLE UP
S646	TUNER
S648	JAZZ (VSA – D801S ONLY)
S649	BALANCE RCH
S650	PHONO
S652	CHURCH (VSX – D801S ONLY)
S654	ACOUSTIC SELECT
S656	DANCE (VSA – D801S ONLY)
S657	MUTING
S658	ACOUSTIC MEMORY
S659	RESET
S660	HALL (VSA – D801S ONLY)

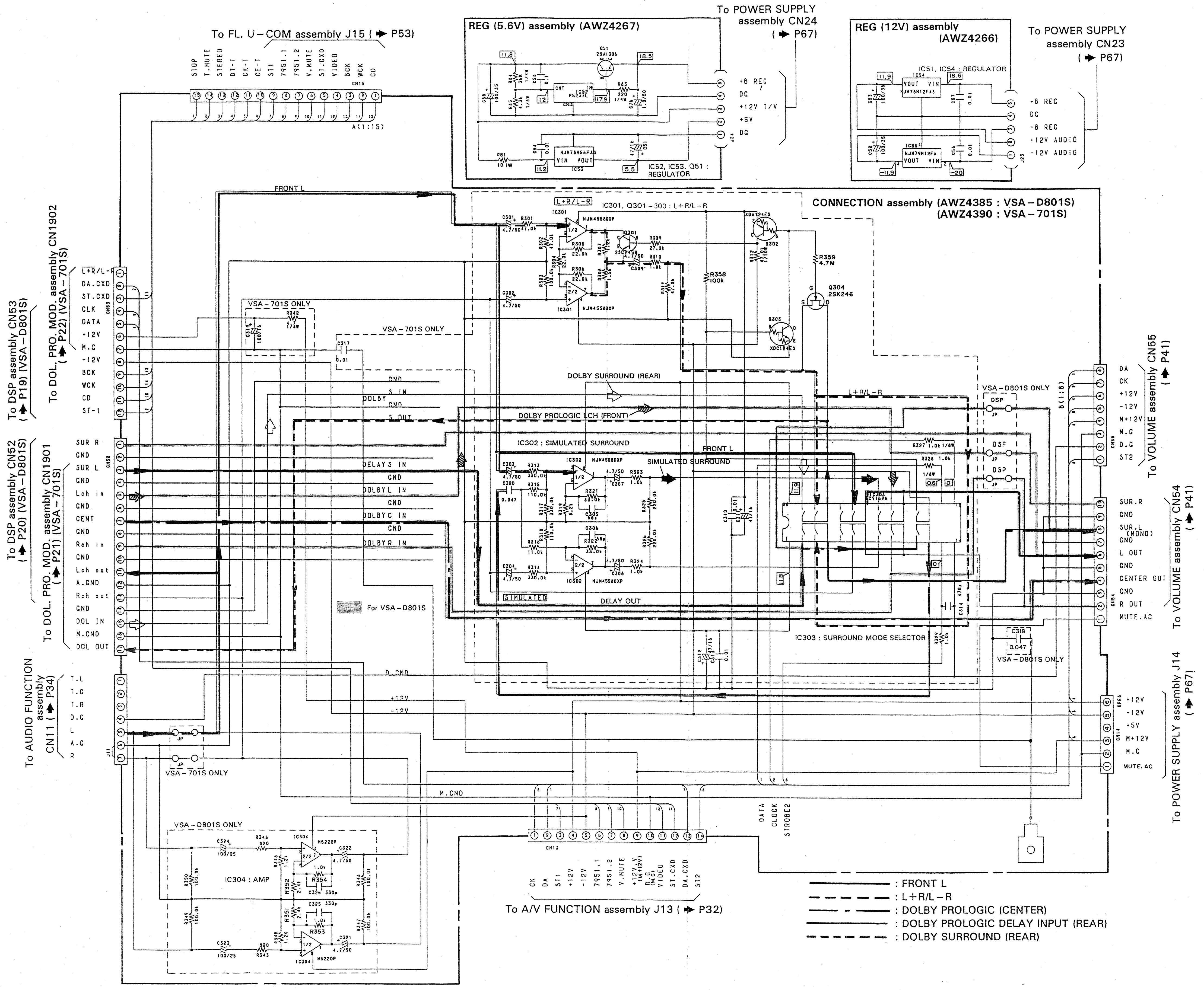
SP SW assembly

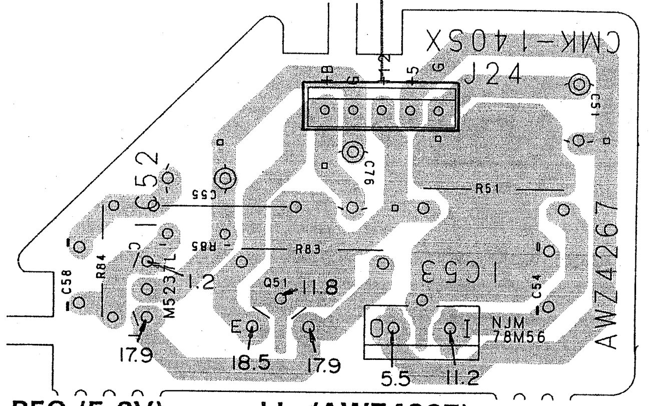
S251	SP – A ON/OFF SP – B ON/OFF


FL. U-COM assembly
(AWK1552 : VSA-D801S)
(AWK1560 : VSA-701S)
(➡ P53, 54)
ADB1024
CN 28
AKT1023
AKT1006
VOLUME assembly
(AWZ4387 : VSA-D801S,
(AWZ4391 : VSA-701S)
(➡ P41, 42)
CN 16
CN 18
Y200(B)
BIND
J16 200
J18 200
J15 400
AMP assembly
(AWZ4286 : VSA-D801S)
(AWZ4718 : VSA-701S)
(➡ P55, 56)
CN 29
J20 150
J21 300
Y1(Y)
Y2(CR)
Y3(B)
Y4(CR)
Y5(BR)
SP SW assembly
(AWZ4289)
(➡ P65)
CN 20
J19 450
FRONT SP assembly
(➡ P66)
J27 150
REAR SP CENTER SP assembly
(AWZ4382 : VSA-D801S)
(AWZ4389 : VSA-701S)
(➡ P66)
CN 21
CN 27
CN 25
SINGLE
DUAL
CENTER SP SW
S3
AKX1004
PRE OUT assembly
(➡ P65)
CN 38
CN 36
J38 75
J36 450
TRANS TERMINAL assembly (➡ P68)
FU 3
FU 4
FU 5
FU 6
VSA-D801S ONLY
VSA-701S ONLY
T1
POWER TRANSFORMER
ATS1427
(VSA-D801S)
ATS1425
(VSA-701S)
S1
AKX-507
Y15(Y)
Y20(W)
Y14(C)
Y13(R)
Y12(B)
Y32(BR)
Y11(BL)
Y31(C)
FU 2
SEALD CABLE
J28
CN 55
CN 54
CONNECTION assembly
(AWZ4385 : VSA-D801S)
(AWZ4390 : VSA-701S)
(➡ P9, 10)
CN 15
CN52
CN53
(VSA-D801S: 9pin)
(VSA-701S: 7pin)
AKT1026
AKT1021
CN13
CN 14
VSA-701S ONLY
DOL. PRO. MOD. assembly
(AXQ1009)
(➡ P21, 22)
(15pin)
DSP assembly
(AWZ4294)
(➡ P19, 20)
(13pin)
(CN053)
VSA-D801S ONLY
J13 150
J17 600
J22 250
J29 300
J25 150
CN 17
POWER SUPPLY assembly
(AWZ4381 : VSA-D801S)
(AWZ4388 : VSA-701S)
(➡ P67, 68)
AKT1025
AKT1009
FU 1
TP57(HOT)
TP56(COM)
TP58
COM(W)
HOT(B)
TP54
TP55
TP53
CN 24
CN 23
AC POWER CORD
ADG1051
AC110V/120-127V/220V/240V
50/60Hz
220V~240V
110V~127V
S2
AKX1004
Y17(R)
Y18(W)
Y19(Y)
J24 200
J23 200
REG (5.6V) assembly
(AWZ4267)
(➡ P10)
REG (12V) assembly
(AWZ4266)
(➡ P10)
J11 200
AUDIO FUNCTION assembly
(AWZ4383)
(➡ P33, 34)
CN11
AKT1024
AKT1011
J12 150
A/V FUNCTION assembly
(AWZ4384)
(➡ P31, 32)
CN 8
AKT1021
AKT1009
AKT1011
AKT1024
AKC1016
J37 100
J40 100
J14 200
S TERM assembly
(AWQ1017)
(➡ P43, 44)
CN 951
CN 952
1
2
3
4
5
6
A
B
C
D

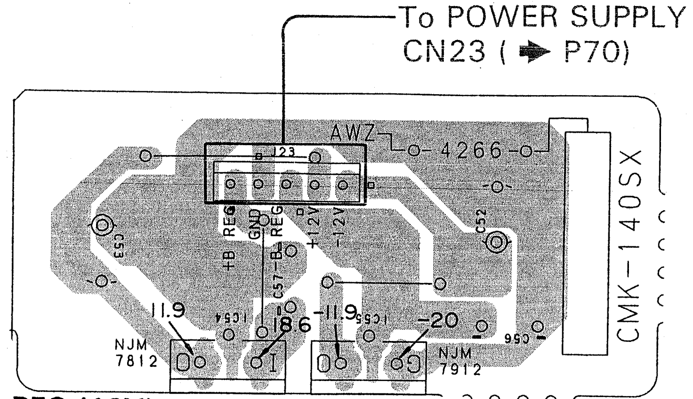
PARTS NO.	PARTS NO. VSA-D801S/SD VSA-701S/SD
FU1	AEK-125 4A/125V
FU2	AEK-125 4A/125V
FU3	AEK-125 4A/125V
FU4	AEK-125 4A/125V
FU5	AEK-120 1.25A/125V
FU6	AEK-120 1.25A/125V

3.2 CONNECTION ASSEMBLY, REG (12V) ASSEMBLY AND REG (5.6V) ASSEMBLY


To FL. U-COM assembly J15 (➨ P53)
To POWER SUPPLY assembly CN24 (➨ P67)
REG (5.6V) assembly (AWZ4267)
IC52, IC53, Q51 : REGULATOR
To POWER SUPPLY assembly CN23 (➨ P67)
REG (12V) assembly (AWZ4266)
IC51, IC54 : REGULATOR
CONNECTION assembly (AWZ4385 : VSA-D801S) (AWZ4390 : VSA-701S)
IC301, Q301-303 : L+R/L-R
IC302 : SIMULATED SURROUND
IC303 : SURROUND MODE SELECTOR
IC304 : AMP
DOLBY SURROUND (REAR)
DOLBY PROLOGIC LCH (FRONT)
SIMULATED SURROUND
FRONT L
DELAY OUT
VSA-701S ONLY
VSA-D801S ONLY
For VSA-D801S
To DSP assembly CN53 (➨ P19) (VSA-D801S)
To DOL. PRO. MOD. assembly CN1902 (➨ P22) (VSA-701S)
To DSP assembly CN52 (➨ P20) (VSA-D801S)
To DOL. PRO. MOD. assembly CN1901 (➨ P21) (VSA-701S)
To AUDIO FUNCTION assembly CN11 (➨ P34)
To VOLUME assembly CN55 (➨ P41)
To VOLUME assembly CN54 (➨ P41)
To POWER SUPPLY assembly J14 (➨ P67)
To A/V FUNCTION assembly J13 (➨ P32)
DATA
CLOCK
STROBE2
———— : FRONT L
— — — — : L+R/L-R
— - — : DOLBY PROLOGIC (CENTER)
———— : DOLBY PROLOGIC DELAY INPUT (REAR)
- - - - - : DOLBY SURROUND (REAR)

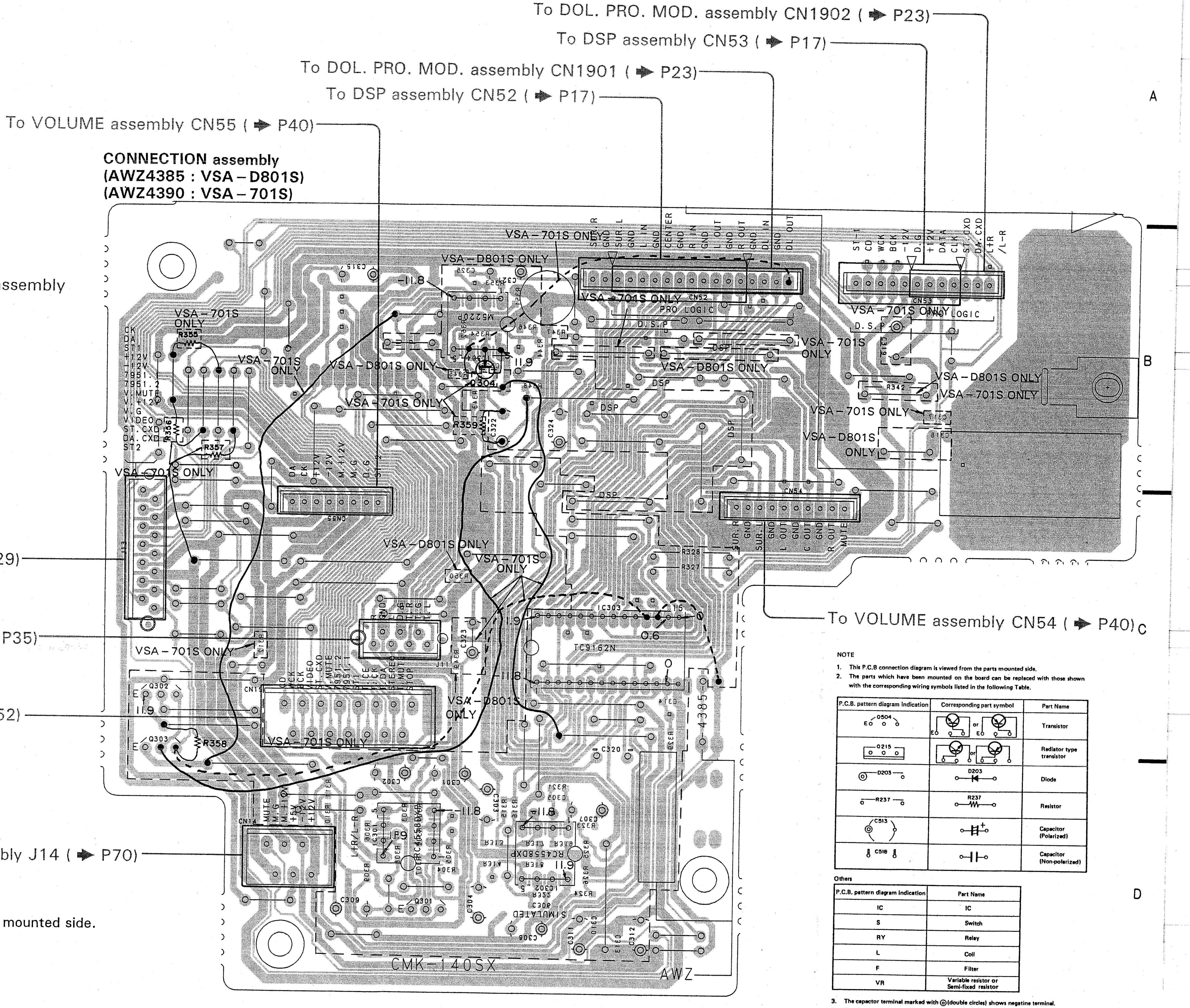

To POWER SUPPLY assembly CN24 (➨ P70)
J24
CMK-140SX
AWZ4267
IC52
M5237L
IC53
NJM 78M56
Q51
R51
R83
R84
R85
C51
C52
C54
C55
C58
C76
+B
+5
+12
6
1.2
11.8
17.9
18.5
17.9
5.5
11.2
E

REG (5.6V) assembly (AWZ4267)


To POWER SUPPLY assembly CN23 (➨ P70)
J23
AWZ-4266
CMK-140SX
+B
GND
REG
+12V
-12V
REG
IC54
IC55
NJM 7812
NJM 7912
C52
C53
C56
C57
11.9
18.6
-11.9
-20

REG (12V) assembly (AWZ4266)

CONNECTION assembly
(AWZ4385 : VSA-D801S)
(AWZ4390 : VSA-701S)


To DOL. PRO. MOD. assembly CN1902 (➨ P23)
To DSP assembly CN53 (➨ P17)
To DOL. PRO. MOD. assembly CN1901 (➨ P23)
To DSP assembly CN52 (➨ P17)
To VOLUME assembly CN55 (➨ P40)
To A/V FUNCTION assembly J13 (➨ P29)
To AUDIO FUNCTION assembly CN11 (➨ P35)
To FL. U-COM assembly J15 (➨ P52)
To POWER SUPPLY assembly J14 (➨ P70)
To VOLUME assembly CN54 (➨ P40)
VSA-701S ONLY
VSA-D801S ONLY
CN52
CN53
CN54
CN55
CN14
CN15
J11
J13
PRO LOGIC
D.S.P
DSP
IC303
TC9162N
IC301
IC302
RC4558DXP
M5220P
Q302
Q303
Q304
Q301
R355
R356
R357
R358
R359
R342
R327
R328
C320
C324
C309
C312
SIMULATED
CMK-140SX
AWZ
4385
-11.8
11.9
11.8
11.6
0.6
E

This P. C. B connection diagram is viewed from the parts mounted side.

NOTE

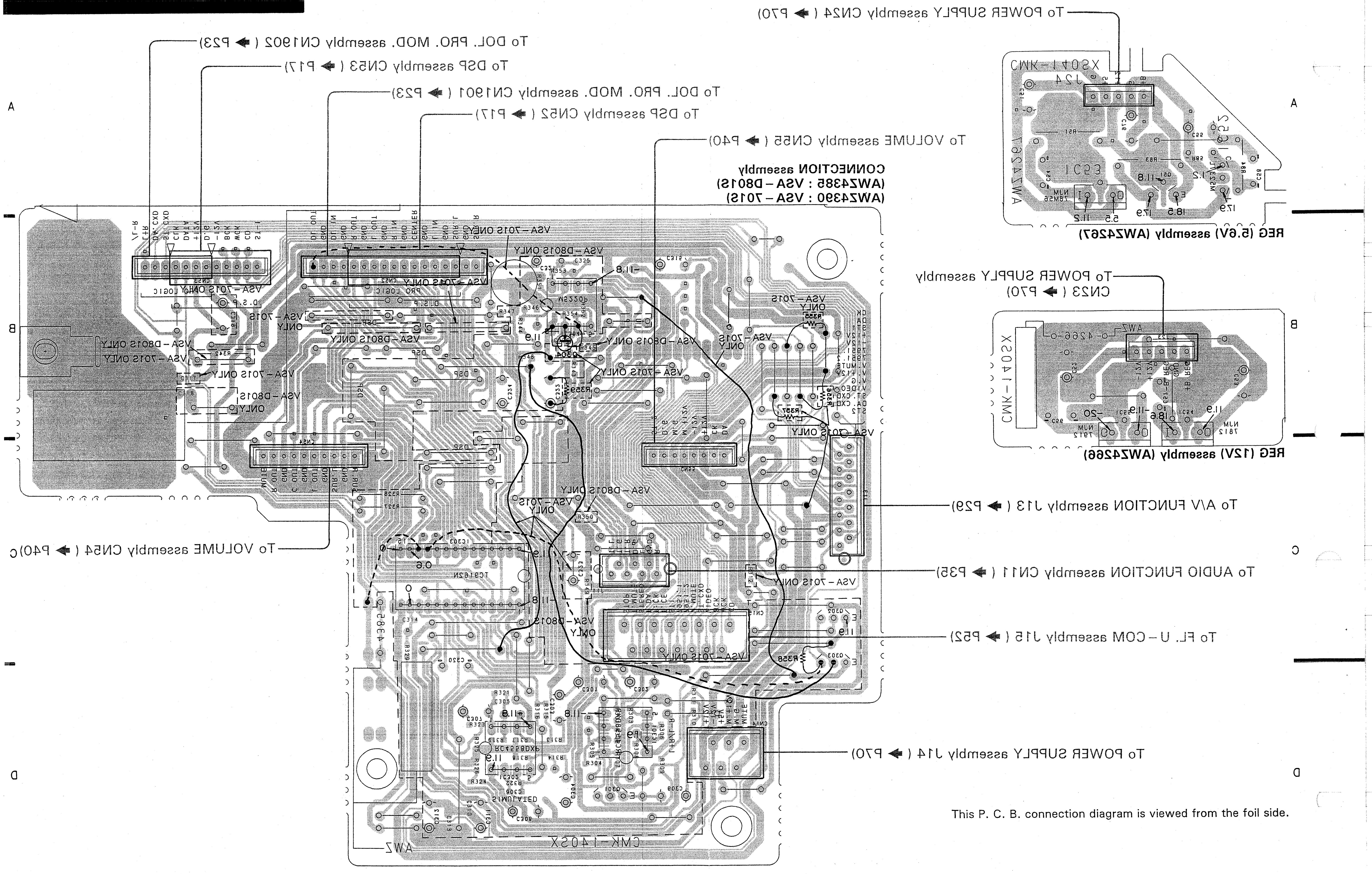
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E ○ Q504 ○ ○	E ○ or E ○	Transistor
Q215	or	Radiator type transistor
◎ D203 ○	D203	Diode
○ R237 ○	R237	Resistor
◎ C513 ○	+	Capacitor (Polarized)
C516		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

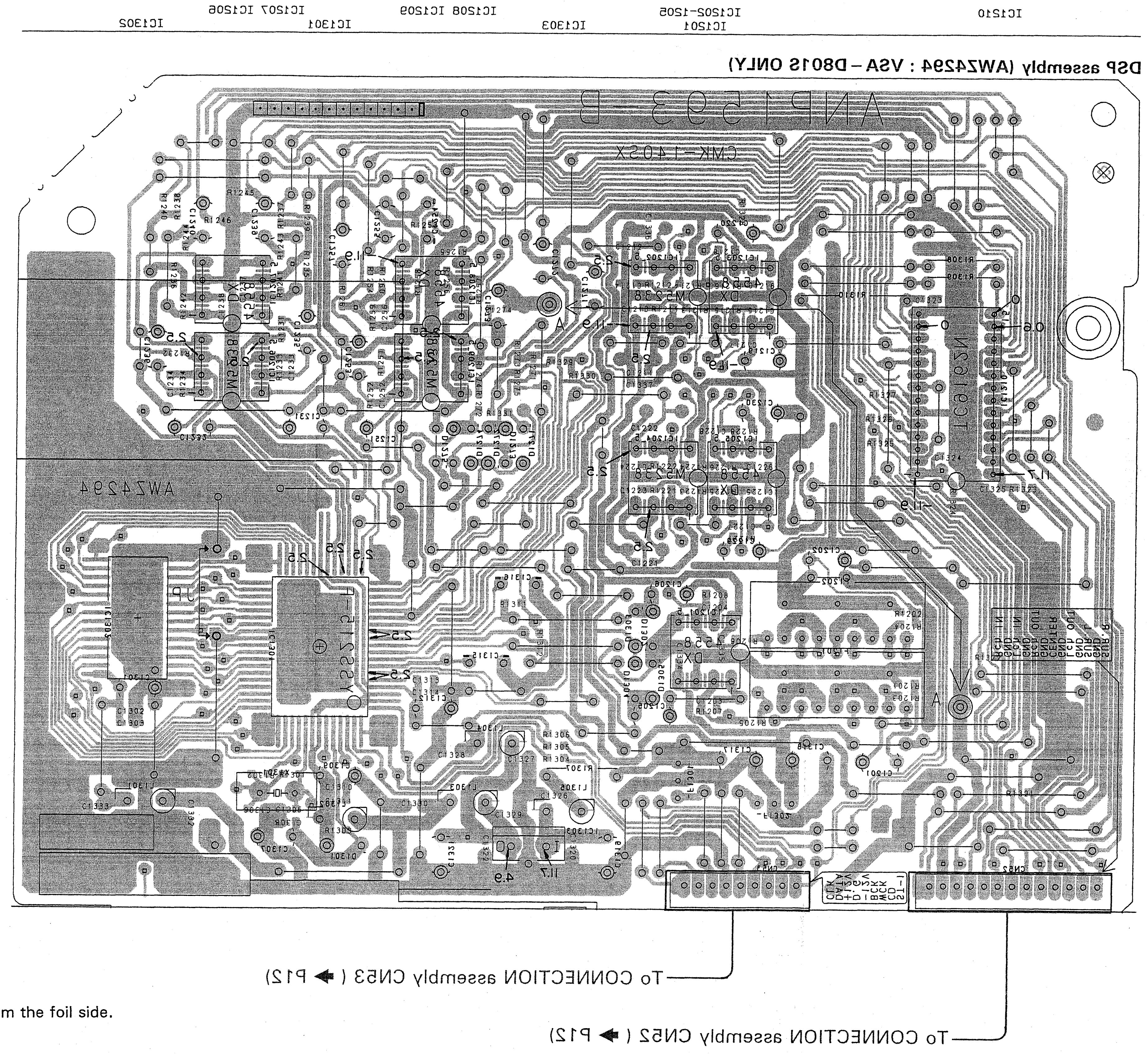
3. The capactor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.


To DOL. PRO. MOD. assembly CN1902 (➡ P23)
To DSP assembly CN53 (➡ P17)
To DOL. PRO. MOD. assembly CN1901 (➡ P23)
To DSP assembly CN52 (➡ P17)
To VOLUME assembly CN55 (➡ P40)
CONNECTION assembly
(AWZ4385 : VSA-D801S)
(AWZ4390 : VSA-701S)
To POWER SUPPLY assembly CN24 (➡ P70)
REG (5.6V) assembly (AWZ4267)
To POWER SUPPLY assembly
CN23 (➡ P70)
REG (12V) assembly (AWZ4266)
To A/V FUNCTION assembly J13 (➡ P29)
To AUDIO FUNCTION assembly CN11 (➡ P35)
To FL. U-COM assembly J15 (➡ P52)
To POWER SUPPLY assembly J14 (➡ P70)
To VOLUME assembly CN54 (➡ P40)
VSA-D801S ONLY
VSA-701S ONLY
PRO LOGIC
D.S.P
DSP
TC9162N
CWK-1405X
CWK-1407X
CWK-1404X
AWZ
SIMULATED
A
B
C
D
1
2
3
4
5
6

This P. C. B. connection diagram is viewed from the foil side.

3.3 DSP ASSEMBLY

DSP assembly (AWZ4294 : VSA-D801S ONLY)

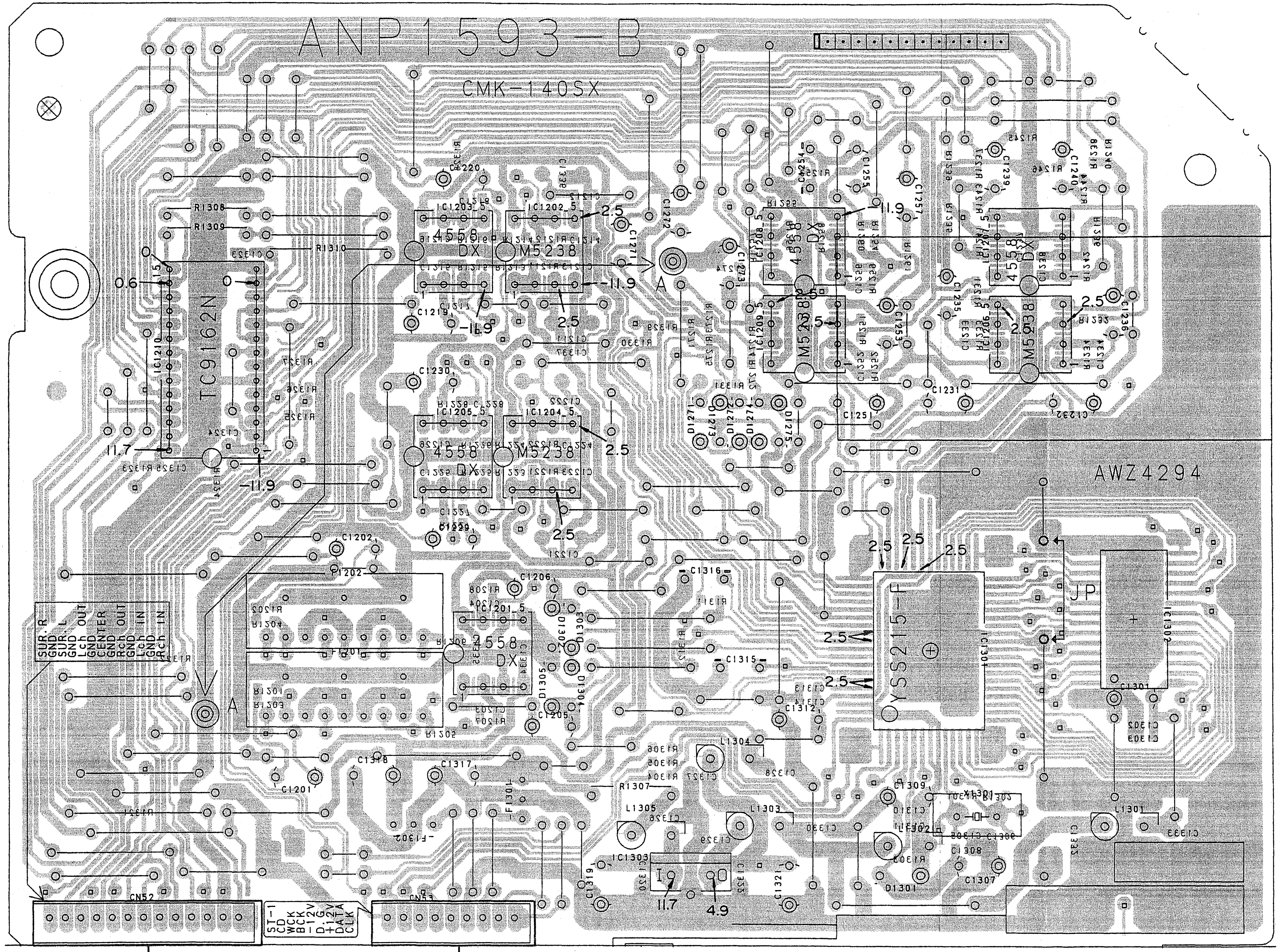

IC1302
IC1307 IC1306
IC1301
IC1308 IC1309
IC1303
IC1202~1205
IC1201
IC1210
ANP1593-B
CMK-1405X
AWZ4294
To CONNECTION assembly CN53 (➡ P12)
To CONNECTION assembly CN52 (➡ P12)

This P. C. B. connection diagram is viewed from the foil side.

A

IC1210 IC1202-1205 IC1201 IC1303 IC1208 IC1209 IC1301 IC1207 IC1206 IC1302

DSP assembly (AWZ4294 : VSA-D801S ONLY)


ANP1593-B
CMK-140SX
AWZ4294
TC9162N
IC1210
YSS215-F
IC1301
IC1302
4558 DX
M5238
IC1203
IC1202
IC1205
IC1204
IC1201
IC1208
IC1209
IC1207
IC1206
IC1303
JP
A
0.6
1.5
0
11.7
-11.9
11.9
-11.9
2.5
4.9
CN52
CN53
SUR R
GND
SUR L
GND
Lch OUT
GND
CENTER
Rch OUT
GND
Lch IN
GND
Rch IN
ST-1
CS
WCK
BCK
-12V
D.GND
+12V
DATA
CLK

To CONNECTION assembly CN53 (➧ P12)

To CONNECTION assembly CN52 (➧ P12)

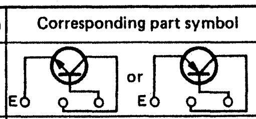
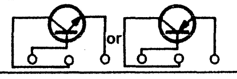
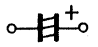
B

C

D

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E○ Q504 ○ ○		Transistor
Q215 ○ ○ ○		Radiator type transistor
◎ D203 ○		Diode
○ R237 ○		Resistor
◎ C513 ○		Capacitor (Polarized)
C518		Capacitor (Non-polarized)

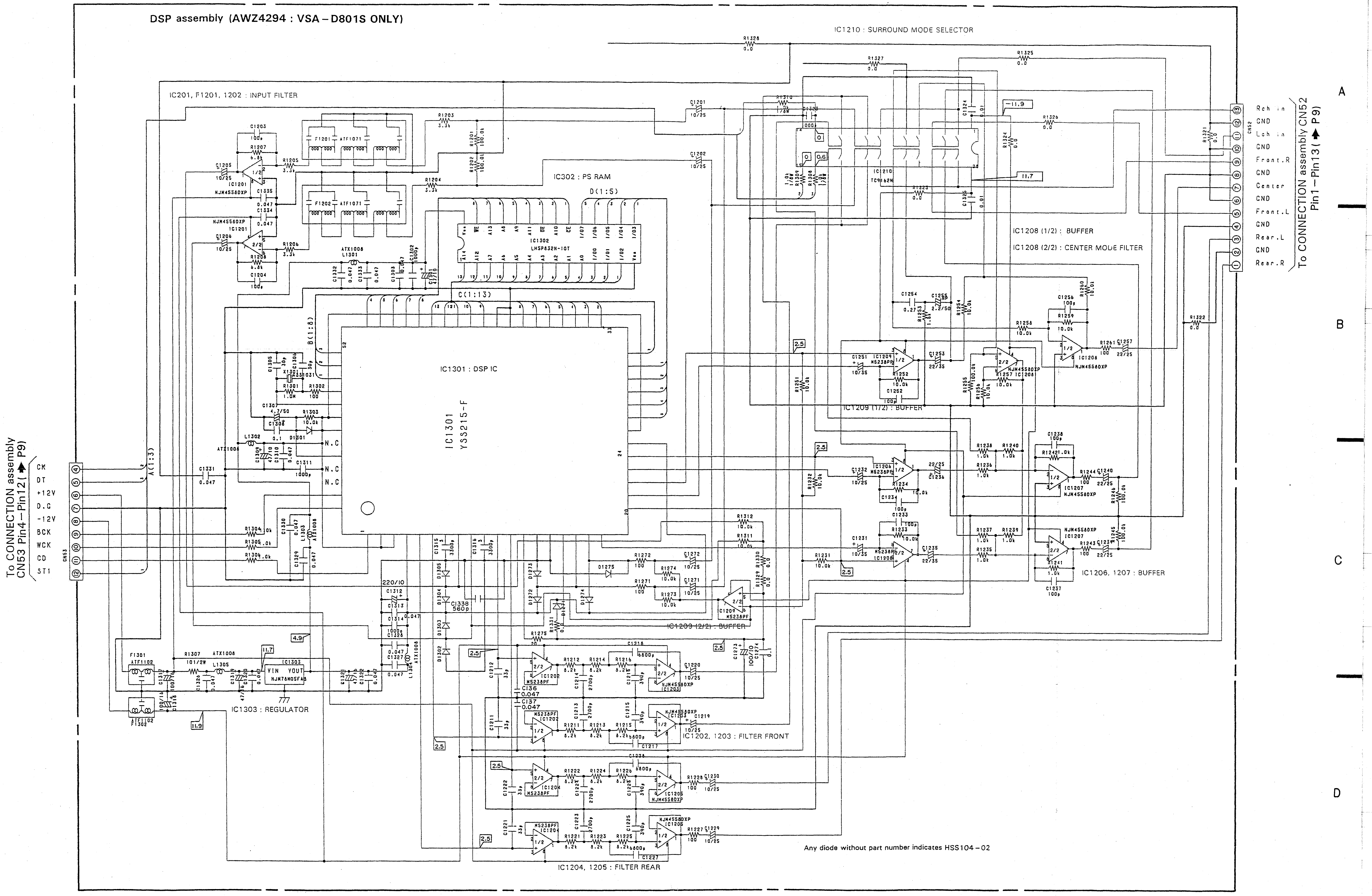
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

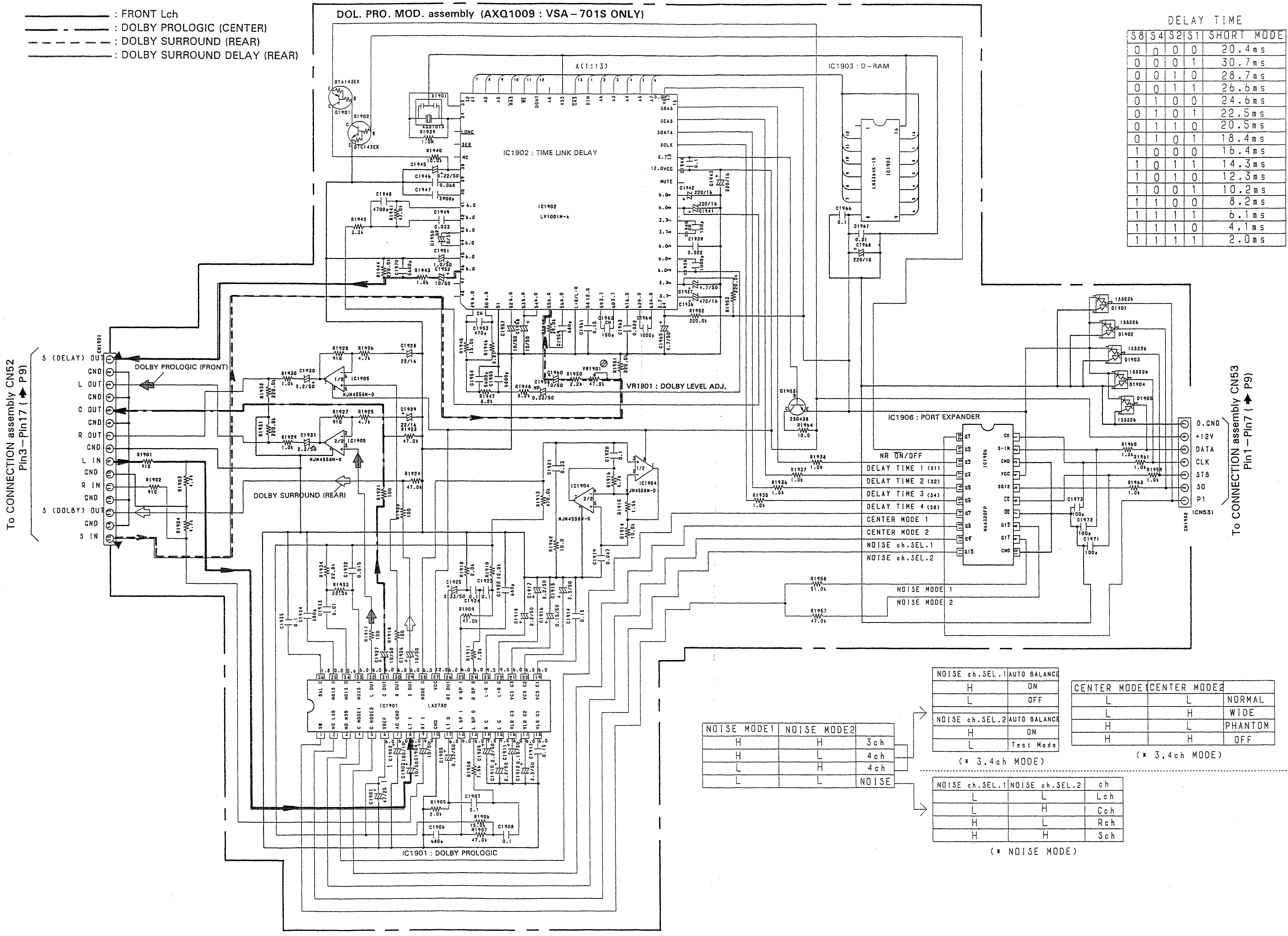
This P. C. B connection diagram is viewed from the parts mounted side.

DSP assembly (AWZ4294 : VSA-D801S ONLY)



1
2
3
4
5
6
A
B
C
D
IC1210 : SURROUND MODE SELECTOR
IC201, F1201, 1202 : INPUT FILTER
IC302 : PS RAM
IC1302
LH5P832N-10T
IC1301 : DSP IC
IC1301
YSS215-F
IC1303 : REGULATOR
NJM78M05FA
IC1208 (1/2) : BUFFER
IC1208 (2/2) : CENTER MODE FILTER
IC1209 (1/2) : BUFFER
IC1209 (2/2) : BUFFER
IC1206, 1207 : BUFFER
IC1202, 1203 : FILTER FRONT
IC1204, 1205 : FILTER REAR
TC9162N
NJM4558DXP
NJM4558DXP
NS238PF
ATF1071
ATX1008
ATF1102
F1301
F1302
X1301
11.9
11.7
2.5
4.9
To CONNECTION assembly CN52 Pin1 - Pin13 (→ P9)
Rch in
GND
Lch in
GND
Front.R
GND
Center
GND
Front.L
GND
Rear.L
GND
Rear.R
To CONNECTION assembly CN53 Pin4 - Pin12 (→ P9)
CK
DT
+12V
D.G
-12V
BCK
WCK
CD
ST1
CN52
CN53
N.C
D(1:5)
C(1:13)
B(1:8)
A(1:13)
Any diode without part number indicates HSS104-02

3.4 DOL. PRO. MOD. ASSEMBLY


: FRONT Lch
: DOLBY PROLOGIC (CENTER)
: DOLBY SURROUND (REAR)
: DOLBY SURROUND DELAY (REAR)
DOL. PRO. MOD. assembly (AXQ1009 : VSA-701S ONLY)
IC1902 : TIME LINK DELAY
IC1902
LY1001N-A
IC1903 : D-RAM
IC1903
A(1:13)
X1901
Q1901
DTA143EK
Q1902
DTC143EK
DOLBY PROLOGIC (FRONT)
DOLBY SURROUND (REAR)
VR1901 : DOLBY LEVEL ADJ.
IC1905
NJM4558M-D
IC1904
NJM4558M-D
Q1903
2SD438
IC1906 : PORT EXPANDER
IC1906
M66320FP
NR ON/OFF
DELAY TIME 1 (S1)
DELAY TIME 2 (S2)
DELAY TIME 3 (S4)
DELAY TIME 4 (S8)
CENTER MODE 1
CENTER MODE 2
NOISE ch.SEL.1
NOISE ch.SEL.2
NOISE MODE 1
NOISE MODE 2
D1901
D1902
D1903
D1904
D1905
1SS226
IC1901
LA2780
IC1901 : DOLBY PROLOGIC
CN1901
S (DELAY) OUT
GND
L OUT
GND
C OUT
GND
R OUT
GND
L IN
GND
R IN
GND
S (DOLBY) OUT
GND
S IN
To CONNECTION assembly CN52 Pin3 – Pin17 (→ P9)
CN1902
(CN53)
D.GND
+12V
DATA
CLK
STB
SO
P1
To CONNECTION assembly CN53 Pin1 – Pin7 (→ P9)

DELAY TIME

S8	S4	S2	S1	SHORT MODE
0	0	0	0	20.4ms
0	0	0	1	30.7ms
0	0	1	0	28.7ms
0	0	1	1	26.6ms
0	1	0	0	24.6ms
0	1	0	1	22.5ms
0	1	1	0	20.5ms
0	1	0	1	18.4ms
1	0	0	0	16.4ms
1	0	1	1	14.3ms
1	0	1	0	12.3ms
1	0	0	1	10.2ms
1	1	0	0	8.2ms
1	1	1	1	6.1ms
1	1	1	0	4.1ms
1	1	1	1	2.0ms

NOISE MODE1	NOISE MODE2	
H	H	3ch
H	L	4ch
L	H	4ch
L	L	NOISE

NOISE ch.SEL.1	AUTO BALANCE
H	ON
L	OFF
NOISE ch.SEL.2	AUTO BALANCE
H	ON
L	Test Mode

(* 3,4ch MODE)

CENTER MODE1	CENTER MODE2	
L	L	NORMAL
L	H	WIDE
H	L	PHANTOM
H	H	OFF

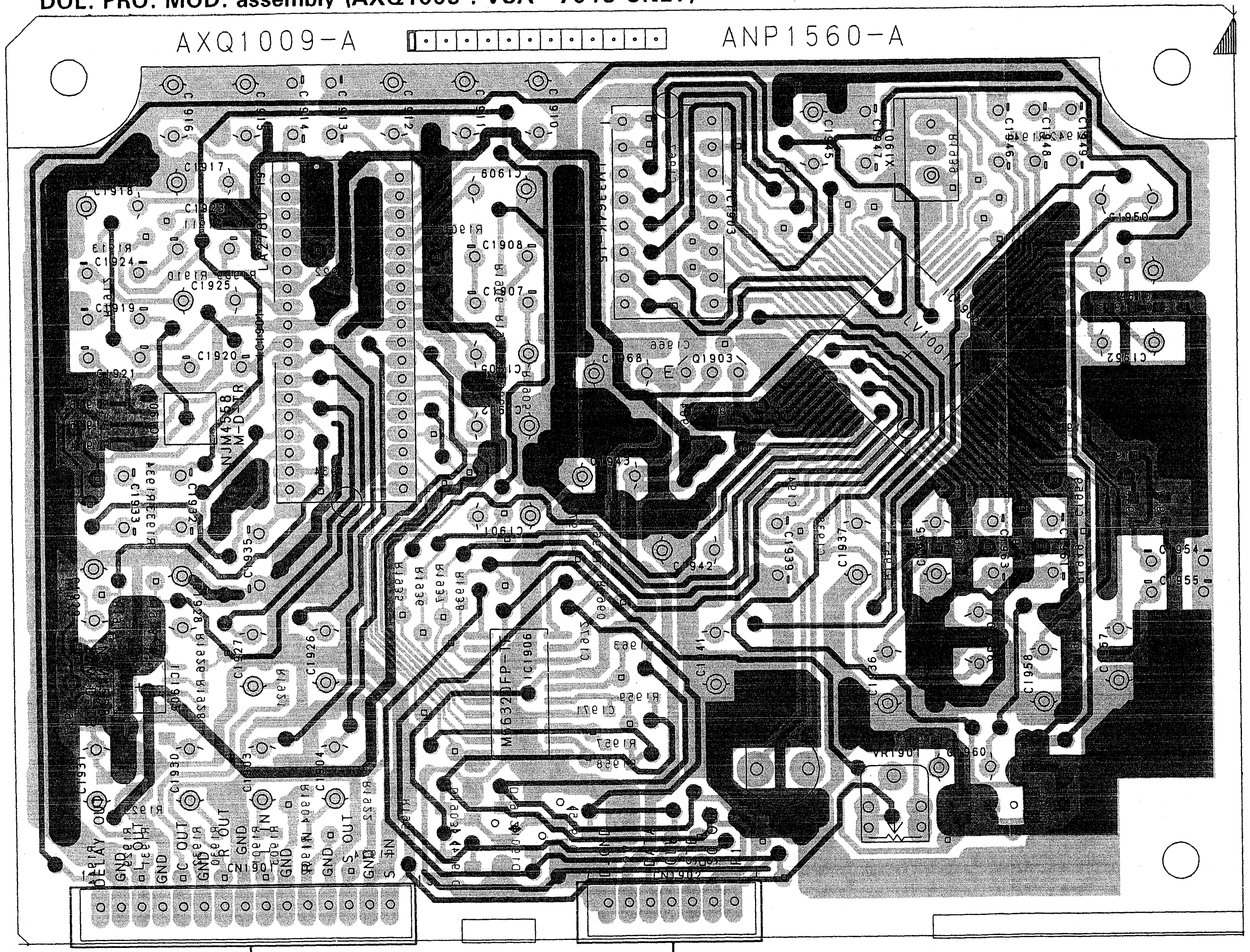
(* 3,4ch MODE)

NOISE ch.SEL.1	NOISE ch.SEL.2	ch
L	L	Lch
L	H	Cch
H	L	Rch
H	H	Sch

(* NOISE MODE)

This P. C. B connection diagram is viewed from the parts mounted side.

DOL. PRO. MOD. assembly (AXQ1009 : VSA – 701S ONLY)

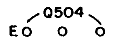
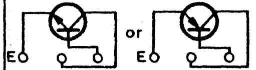
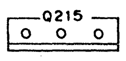
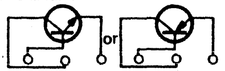
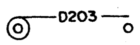
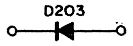
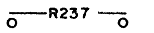
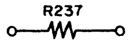
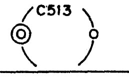
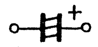
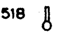

AXQ1009-A
ANP1560-A
NJM4558MD
LA2780
M5632DFP
IC1906
VR1901
Q1903
E
CN1901
CN1902
DELAY
GND
L OUT
GND
C OUT
GND
R OUT
GND
R IN
GND
L IN
GND
S OUT
GND
S IN
C1916
C1917
C1918
C1919
C1920
C1921
C1924
C1925
C1926
C1927
C1930
C1931
C1935
C1937
C1941
C1942
C1943
C1950
C1954
C1955
C1958
C1960
C1968
C1971
C1907
C1908
C1909
C1912
C1913
C1914
C1915
R1957
R1958
R1959
R1923

To CONNECTION assembly CN53 Pin1 – Pin7 (➧ P12)

To CONNECTION assembly CN52 Pin3 – Pin17 (➧ P12)

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarized)
		Capacitor (Non-polarized)

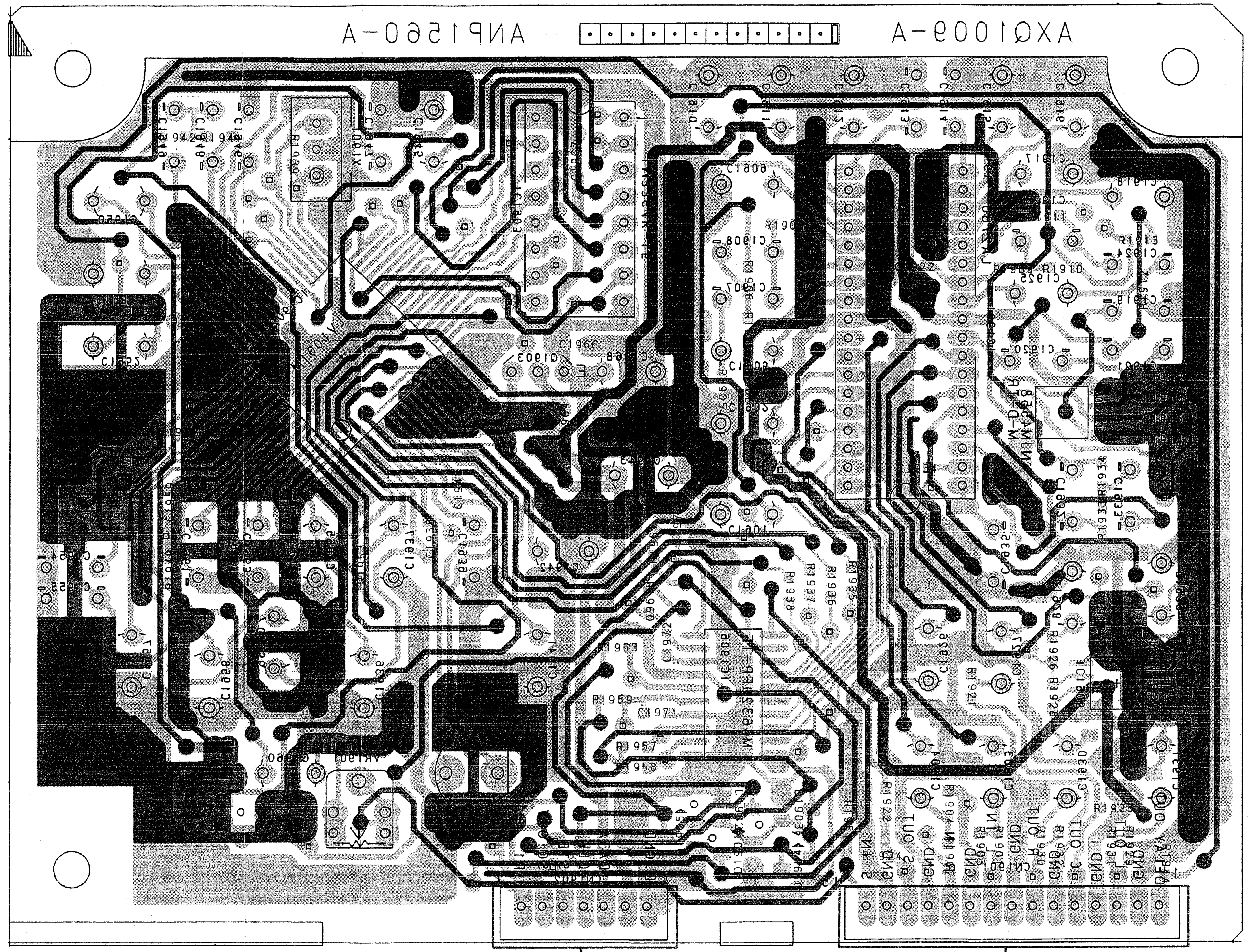
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

This P. C. B. connection diagram is viewed from the foil side.

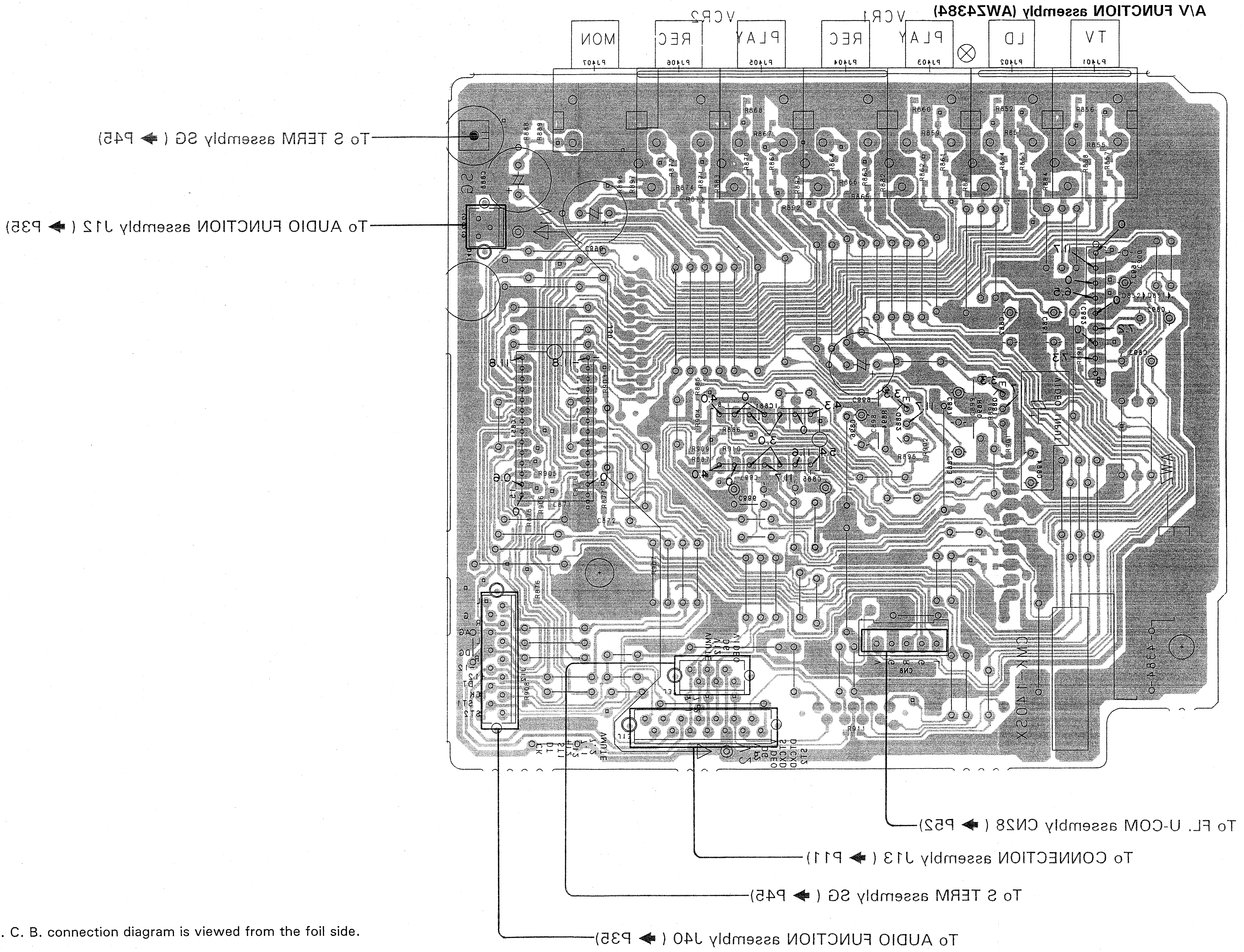
DOL. PRO. MOD. assembly (AXQ1009 : VSA-701S ONLY)



To CONNECTION assembly CN53 Pin1-Pin7 (➡ P12)

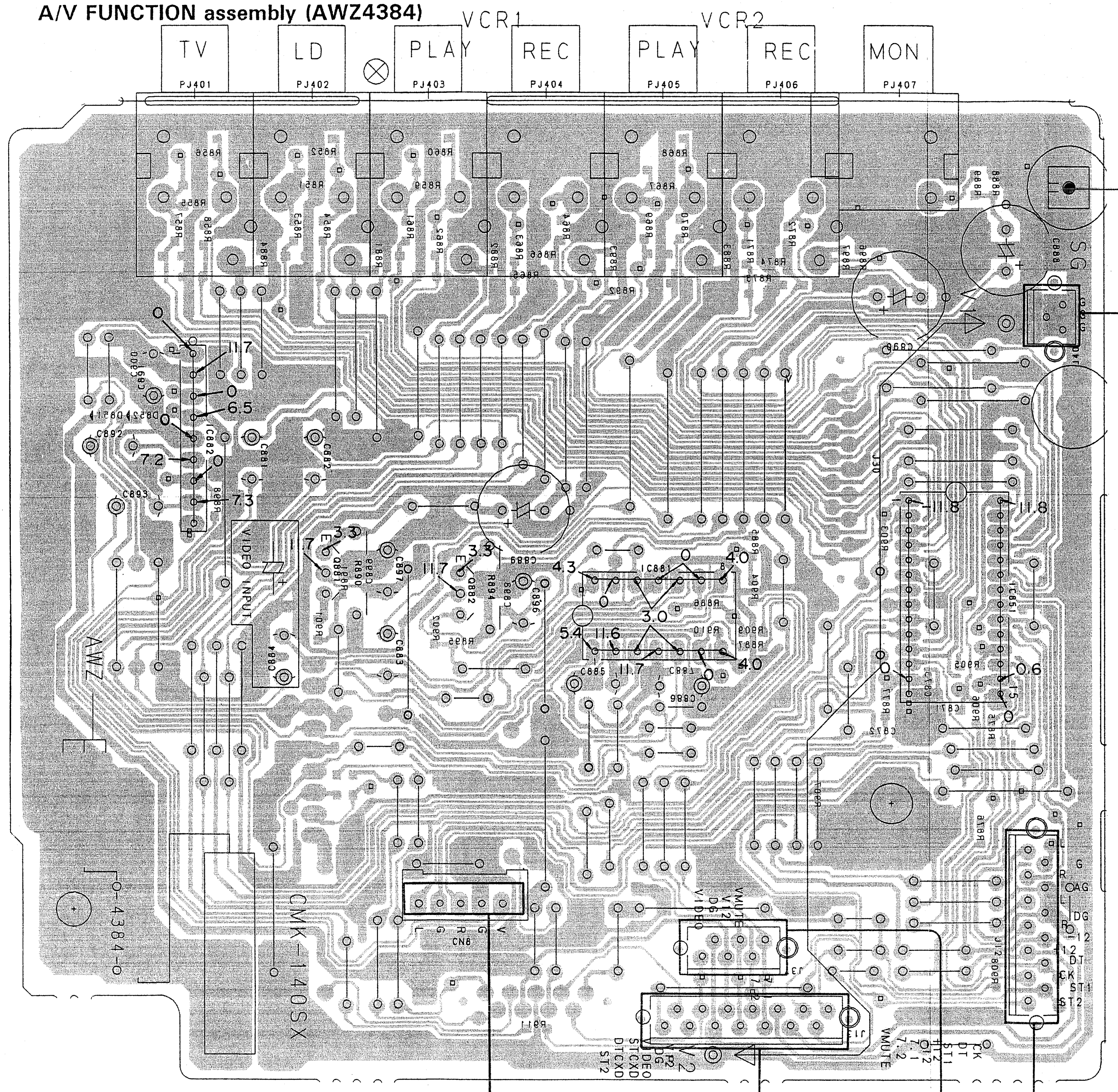
To CONNECTION assembly CN52 Pin3-Pin17 (➡ P12)

3.5 A/V FUNCTION ASSEMBLY


A/V FUNCTION assembly (AWZ4384)
VCR2
VCR1
MON
REC
PLAY
REC
PLAY
LD
TV
P1407
P1406
P1405
P1404
P1403
P1402
P1401
To S TERM assembly SG (➡ P45)
To AUDIO FUNCTION assembly J12 (➡ P35)
To FL. U-COM assembly CN28 (➡ P52)
To CONNECTION assembly J13 (➡ P11)
To S TERM assembly SG (➡ P45)
To AUDIO FUNCTION assembly J40 (➡ P35)
CN8
J11
J13
J12
SG
CWX-1405
VNP-4384
VIDEO INPUT
R911
R876
R905
R906
R877
C872
R909
R910
R907
R895
R896
C888
C887
C886
C885
C883
C884
R852
R851
R855
R856
R857
R858
R853
R854
R859
R860
R861
R862
R863
R864
R866
R867
R868
R869
R870
R871
R872
R873
R874
R881
R882
R883
R884
R888
R889
R892
R896
R897

This P. C. B. connection diagram is viewed from the foil side.

A/V FUNCTION assembly (AWZ4384)


VCR1
VCR2
TV
LD
PLAY
REC
PLAY
REC
MON
PJ401
PJ402
PJ403
PJ404
PJ405
PJ406
PJ407
SG
VIDEO INPUT
AWZ
CMK-140SX
0-4384-0
IC881
J30
J3
J1
CN8
VMUTE
VIDEO
ST1
ST2
CK
DT

To S TERM assembly SG (➧ P45)

To AUDIO FUNCTION assembly J12 (➧ P35)

To FL. U-COM assembly CN28 (➧ P52)

To CONNECTION assembly J13 (➧ P11)

To S TERM assembly SG (➧ P45)

To AUDIO FUNCTION assembly J40 (➧ P35)

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

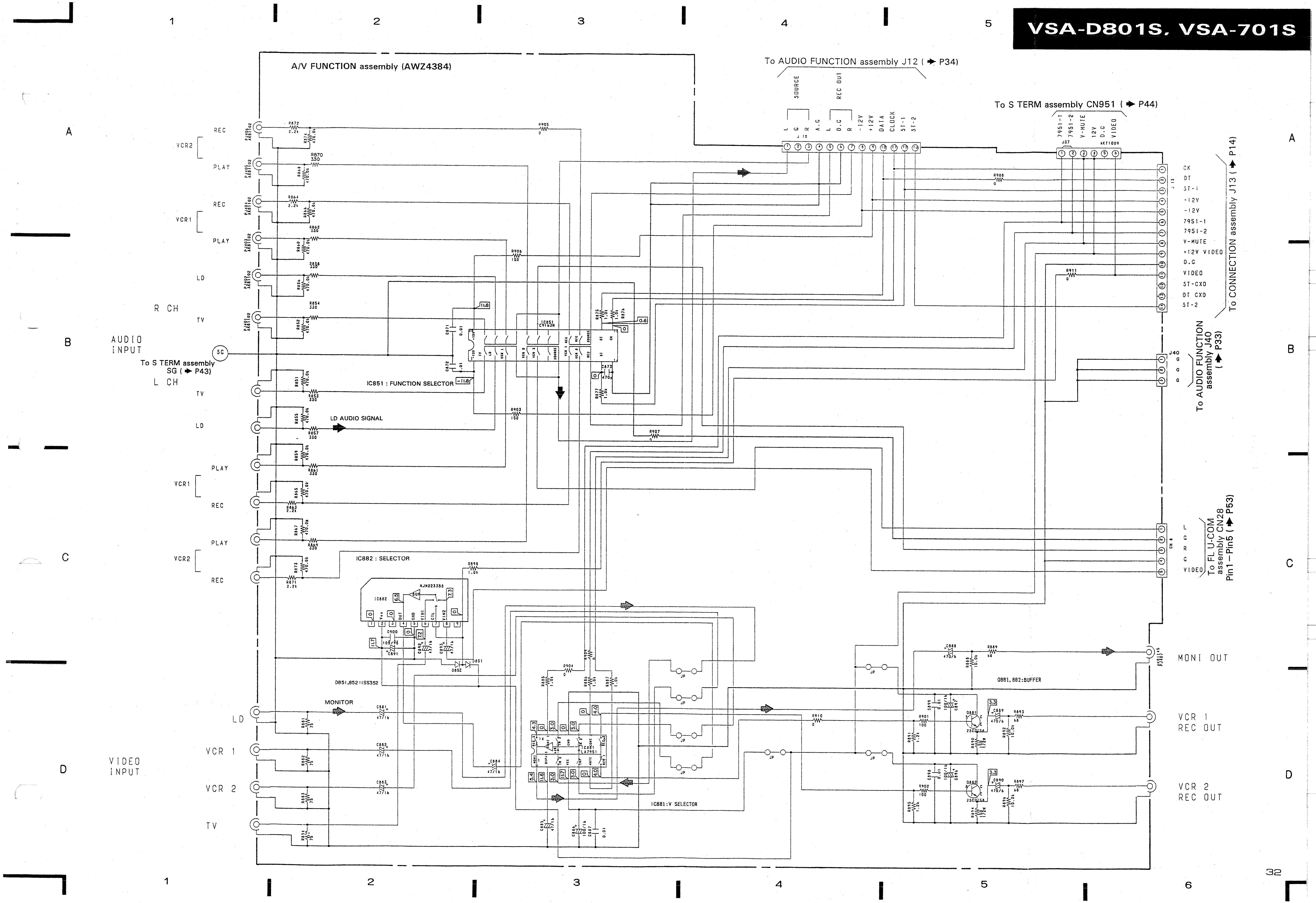
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	E or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

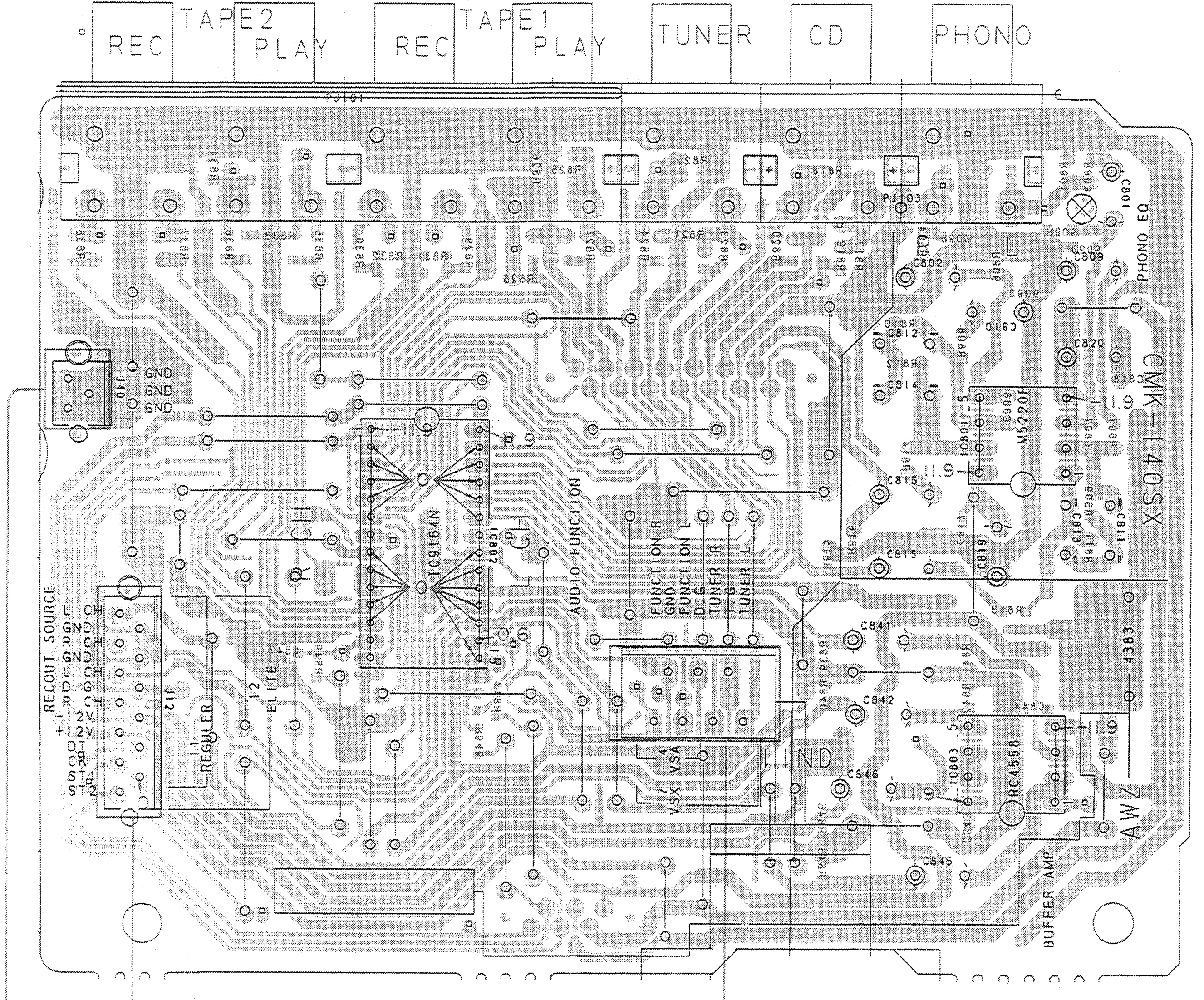
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

This P. C. B connection diagram is viewed from the parts mounted side.


A/V FUNCTION assembly (AWZ4384)
To AUDIO FUNCTION assembly J12 (➔ P34)
SOURCE
REC OUT
L
G
R
A.G
L
D.G
R
-12V
+12V
DATA
CLOCK
ST-1
ST-2
J12
To S TERM assembly CN951 (➔ P44)
7951-1
7951-2
V-MUTE
12V
D.G
VIDEO
J37
AKT1009
CK
DT
ST-1
-12V
-12V
7951-1
7951-2
V-MUTE
+12V VIDEO
D.G
VIDEO
ST-CXD
DT CXD
ST-2
J13
To CONNECTION assembly J13 (➔ P14)
J40
G
G
G
To AUDIO FUNCTION assembly J40 (➔ P33)
L
G
R
G
VIDEO
CN6
To FL U-COM assembly CN28 Pin1 – Pin5 (➔ P53)
MONI OUT
VCR 1 REC OUT
VCR 2 REC OUT
Q881, 882:BUFFER
IC881:V SELECTOR
LA7951
IC882 : SELECTOR
NJM2233BS
D851,852:1SS352
MONITOR
IC851 : FUNCTION SELECTOR
LC7821
IC851 : FUNCTION SELECTOR
LD AUDIO SIGNAL
AUDIO INPUT
To S TERM assembly SG (➔ P43)
SG
R CH
L CH
REC
PLAY
VCR2
VCR1
LD
TV
VIDEO INPUT
VCR 1
VCR 2
2SC945A
R905
R908
R911
R903
R906
R907
R910
R904
R909
R898
JP
1
2
3
4
5
6
A
B
C
D

AUDIO FUNCTION assembly (AWZ4383)


A
TAPE2
REC
PLAY
TAPE1
REC
PLAY
TUNER
CD
PHONO
A
P1103
PHONO EQ
CMK-140SX
GND
GND
GND
J10
B
IC9164N
R CH
L CH
AUDIO FUNCTION
FUNCTION R
GND
FUNCTION L
D.G
TUNER R
T.G
TUNER L
IC801
M5220P
B
RECOUT SOURCE
L CH
GND
R CH
GND
L CH
R CH
D.G
R CH
+12V
+12V
CR
ST1
ST2
J12
REGULER
ELITE
VSA
VSX
LIND
IC803
RC4558
AWZ-4383
C
BUFFER AMP
C

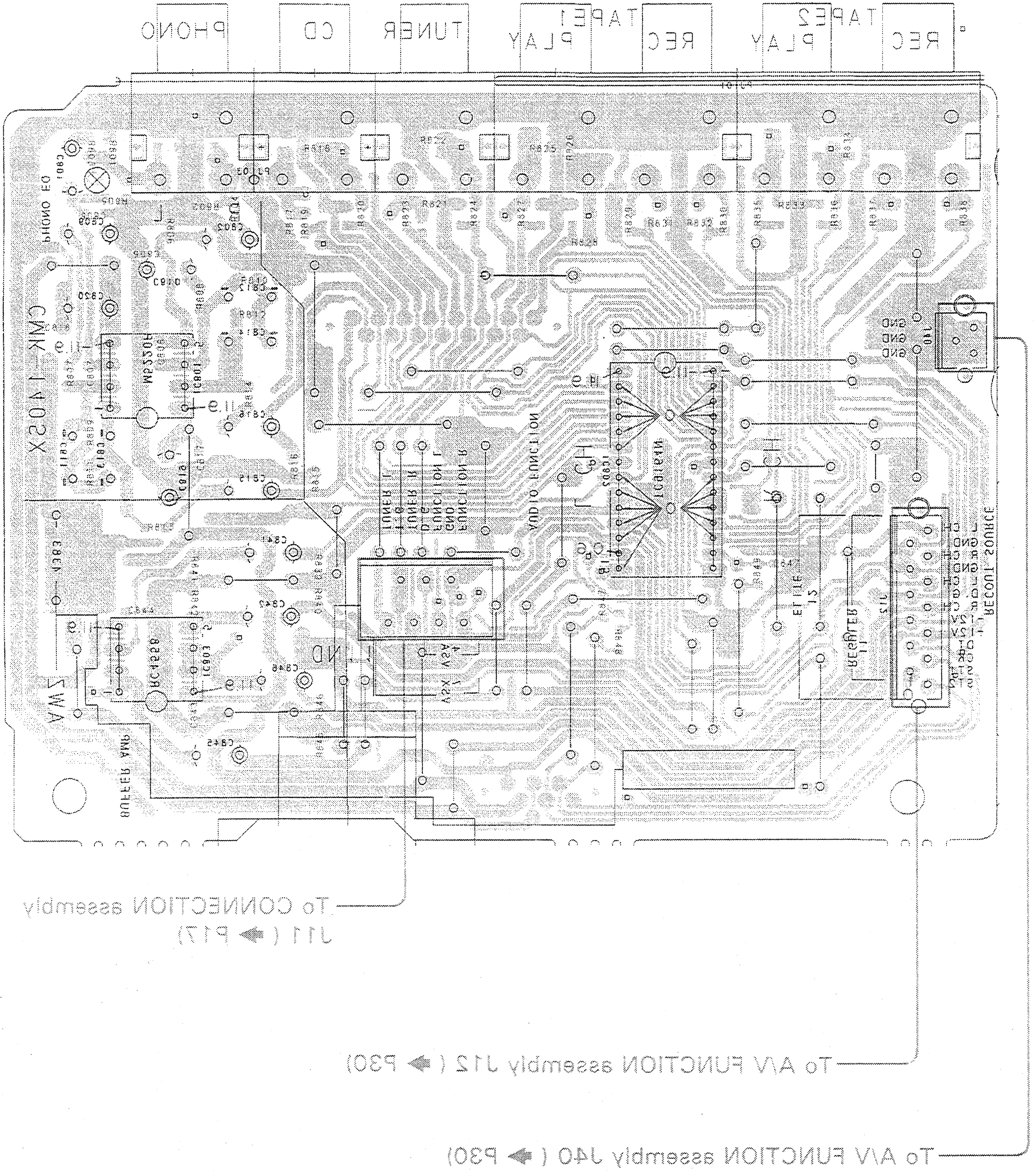
To CONNECTION assembly J11 (➨ P17)

To A/V FUNCTION assembly J12 (➨ P30)

D To A/V FUNCTION assembly J40 (➨ P30) D

This P. C. B connection diagram is viewed from the parts mounted side.

AUDIO FUNCTION assembly (AWZ4383)


PHONO
CD
TUNER
TAPE1
PLAY
REC
TAPE2
PLAY
REC
CMK-1405X
AWZ
BUFFER AMP
GND
GND
GND
J40
AUDIO FUNCTION
VIDEO FUNCTION
L CH
R CH
RECOUT SOURCE
1
2
A
B
C
D

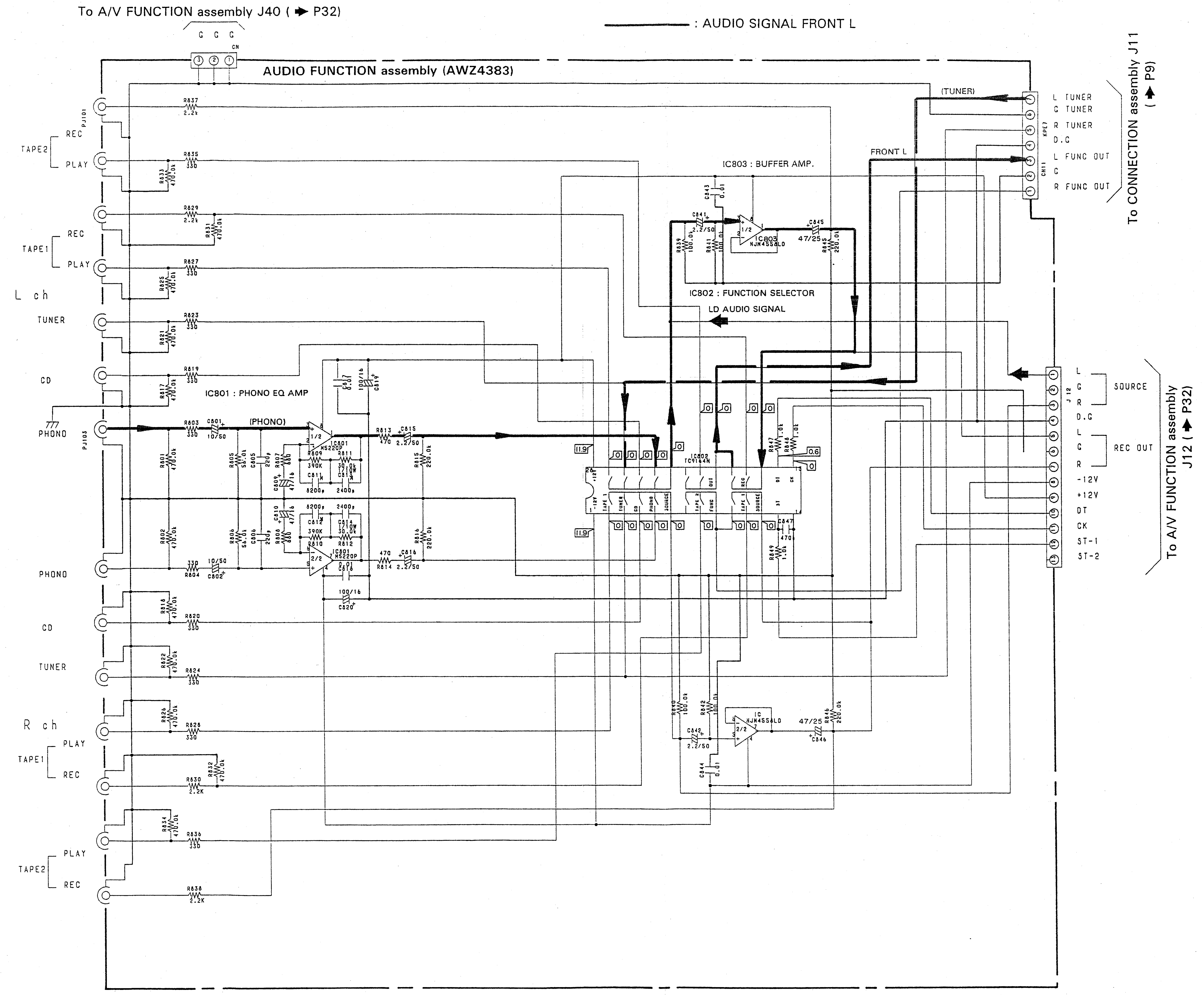
To CONNECTION assembly J11 (➡ P17)

To A/V FUNCTION assembly J12 (➡ P30)

To A/V FUNCTION assembly J40 (➡ P30)

This P. C. B. connection diagram is viewed from the foil side.

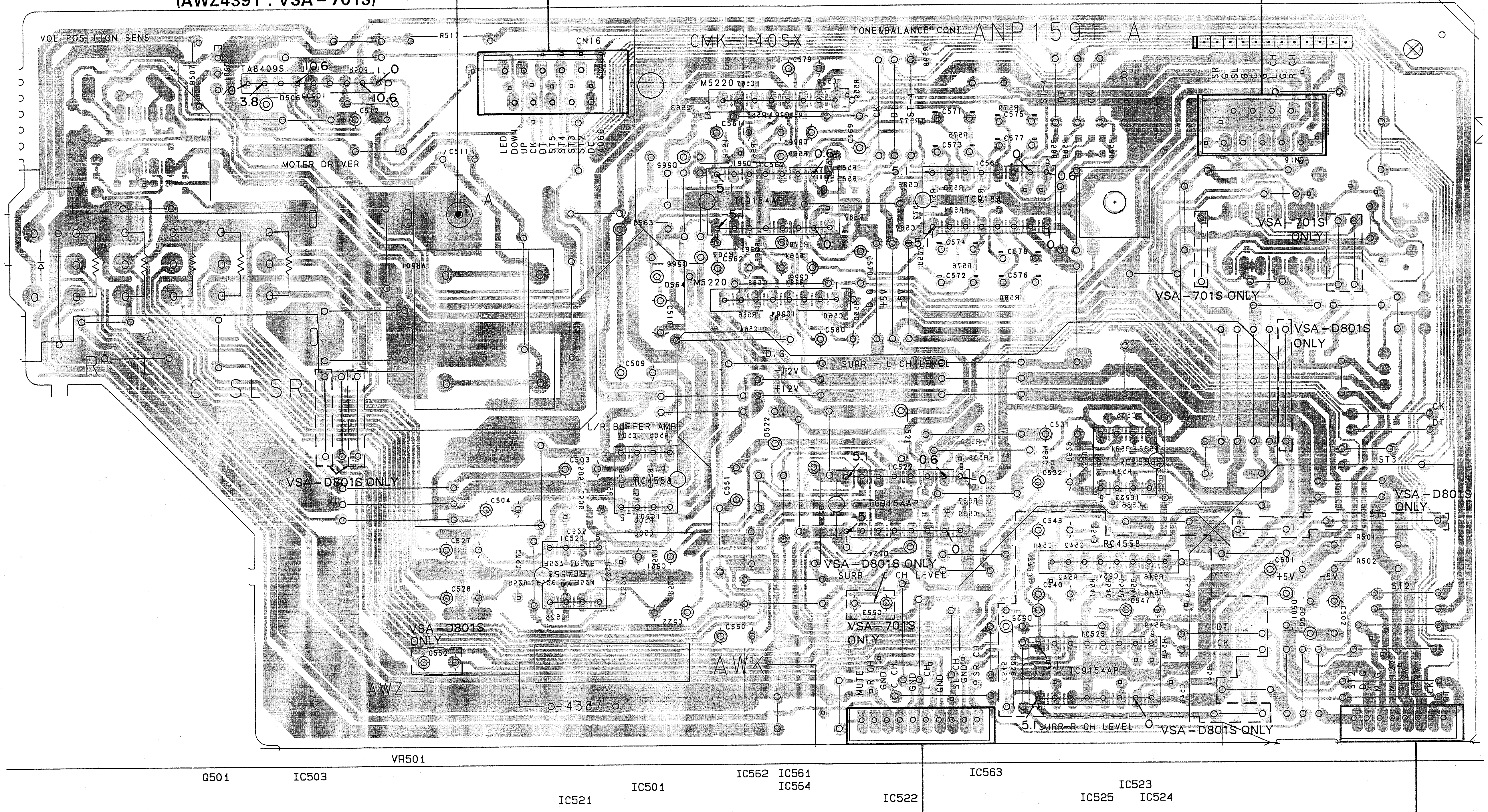
3.6 AUDIO FUNCTION ASSEMBLY


To A/V FUNCTION assembly J40 (➡ P32)
G G G
CN
: AUDIO SIGNAL FRONT L
AUDIO FUNCTION assembly (AWZ4383)
(TUNER)
FRONT L
IC803 : BUFFER AMP.
IC802 : FUNCTION SELECTOR
LD AUDIO SIGNAL
IC801 : PHONO EQ AMP
(PHONO)
IC803 NJM4558LD
IC802 TC9164N
IC801 NJM4558LD
IC801 NJM2068M
L TUNER
G TUNER
R TUNER
D.G
L FUNC OUT
G
R FUNC OUT
KPE7
CN11
To CONNECTION assembly J11 (➡ P9)
J12
L
G
R
SOURCE
D.G
L
G
R
REC OUT
-12V
+12V
DT
CK
ST-1
ST-2
To A/V FUNCTION assembly J12 (➡ P32)
PJ101
TAPE2
REC
PLAY
TAPE1
REC
PLAY
L ch
TUNER
CD
PHONO
PJ103
PHONO
CD
TUNER
R ch
PLAY
TAPE1
REC
PLAY
TAPE2
REC
R837 2.2k
R835 330
R833 470.0k
R829 2.2k
R831 470.0k
R827 330
R825 470.0k
R823 330
R821 470.0k
R819 330
R817 470.0k
R803 330
C801 10/50
R801 470.0k
R802 470.0k
R804 330
C802 10/50
R818 470.0k
R820 330
R822 470.0k
R824 330
R826 470.0k
R828 330
R830 2.2K
R832 470.0k
R834 470.0k
R836 330
R838 2.2K
R813 470
C815 2.2/50
R814 470
C816 2.2/50
R815 220.0k
R816 220.0k
C817 0.01
C819 100/16
C820 100/16
C843 0.01
C841 2.2/50
C845 47/25
R839 100.0k
R841 100.0k
R845 220.0k
R840 100.0k
R842 100.0k
C842 2.2/50
C844 0.01
C846 47/25
R846 220.0k
R847 1.0k
R848 1.0k
R849 1.0k
C847 470
TAPE 1
TUNER
CD
PHONO
SOURCE
TAPE 2
FUNC
OUT
TAPE 1
REC
SOURCE
ST
DT
CK
-12V
+12V

To FL. U-COM assembly J16 (➧ P52)

VOLUME assembly (AWZ4387 : VSA-D801S)
(AWZ4391 : VSA-701S)

To AMP assembly J18 (➧ P57)

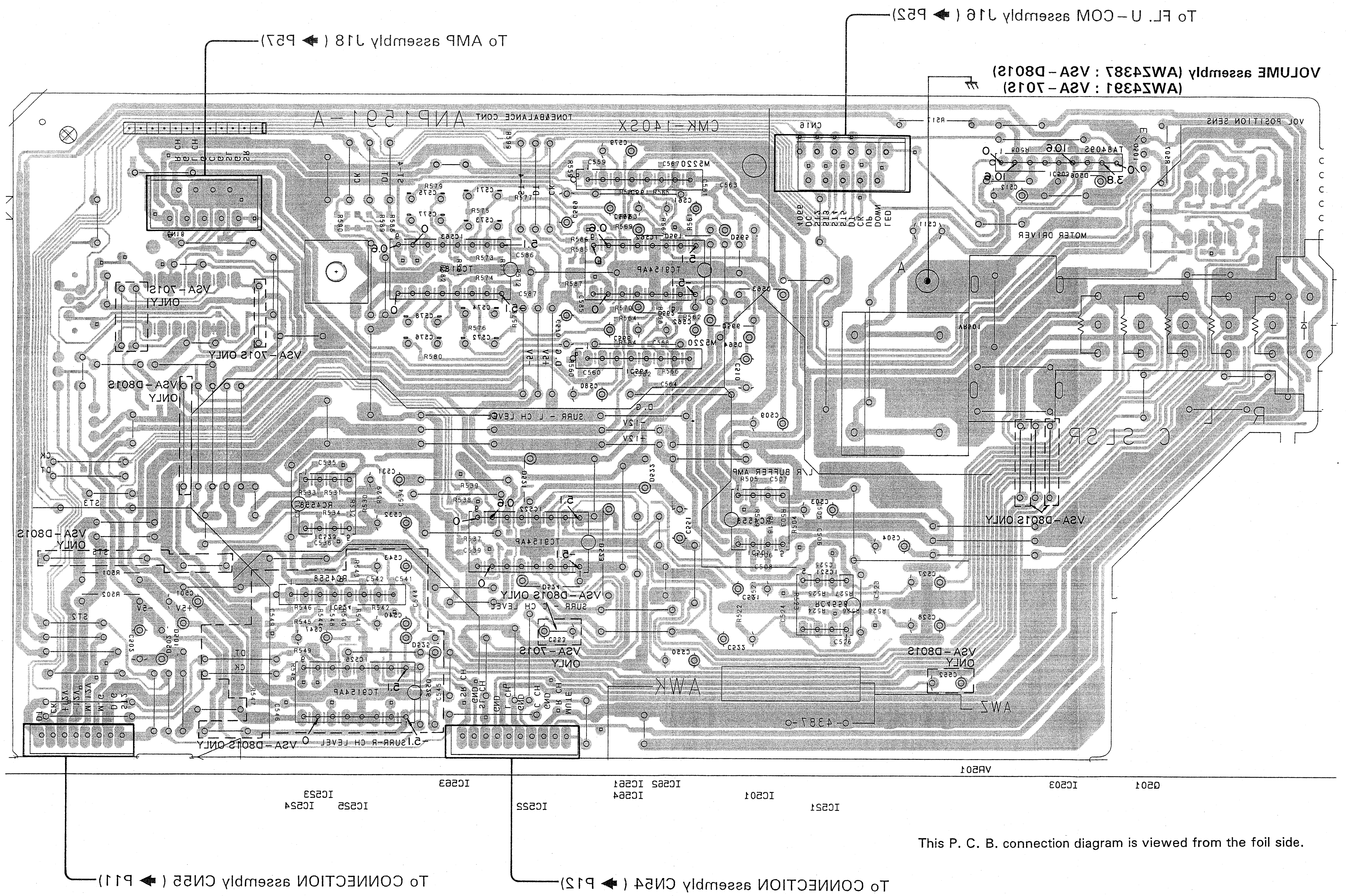

VOL POSITION SENS
TA8409S
MOTER DRIVER
CN16
LED
DOWN
UP
CK
DT
ST5
ST4
ST3
ST2
DC
4066
CMK-140SX
TONE&BALANCE CONT
ANP1591-A
M5220
TC9154AP
TC9188
CN18
SR
SG
SL
C
C
G
L CH
G
R CH
VSA-701S ONLY
VSA-D801S ONLY
D.G
-12V
+12V
SURR-L CH LEVEL
L/R BUFFER AMP
RC4558
SURR-C CH LEVEL
SURR-R CH LEVEL
CK
DT
ST3
ST5
ST2
+5V
-5V
R501
R502
MUTE
R CH
GND
L CH
C CH
GND
SL CH
GND
SR CH
ST2
D.G
M.G
M.12V
-12V
+12V
CK
R
L
C
SL
SR
AWZ
AWK
4387
A
10.6
3.8
0
0.6
5.1
-5.1
VR501
Q501
IC503
IC521
IC501
IC562
IC561
IC564
IC522
IC563
IC525
IC523
IC524

This P. C. B connection diagram is viewed from the parts mounted side.

To CONNECTION assembly CN54 (➧ P12)

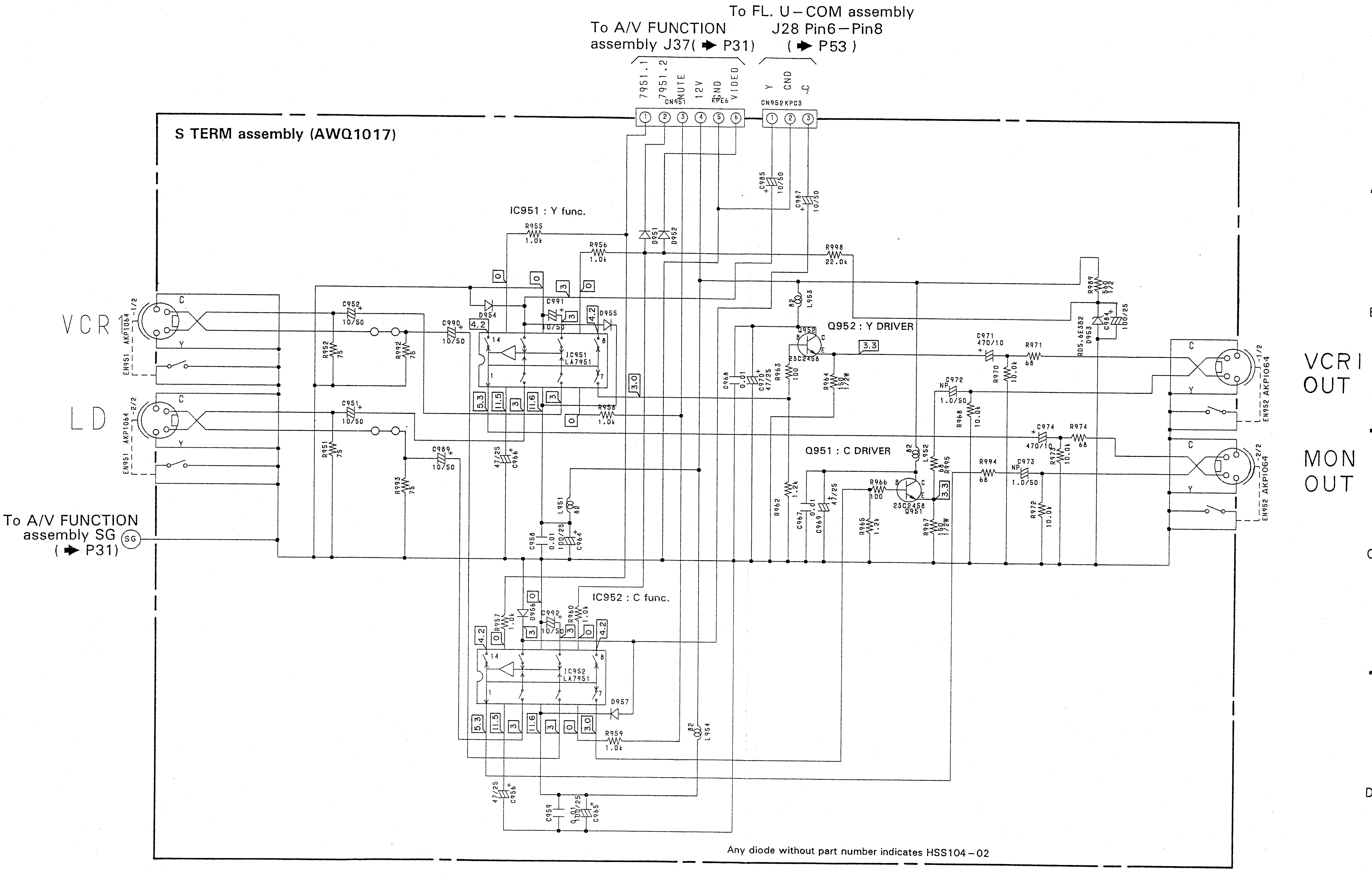
To CONNECTION assembly CN55 (➧ P11)

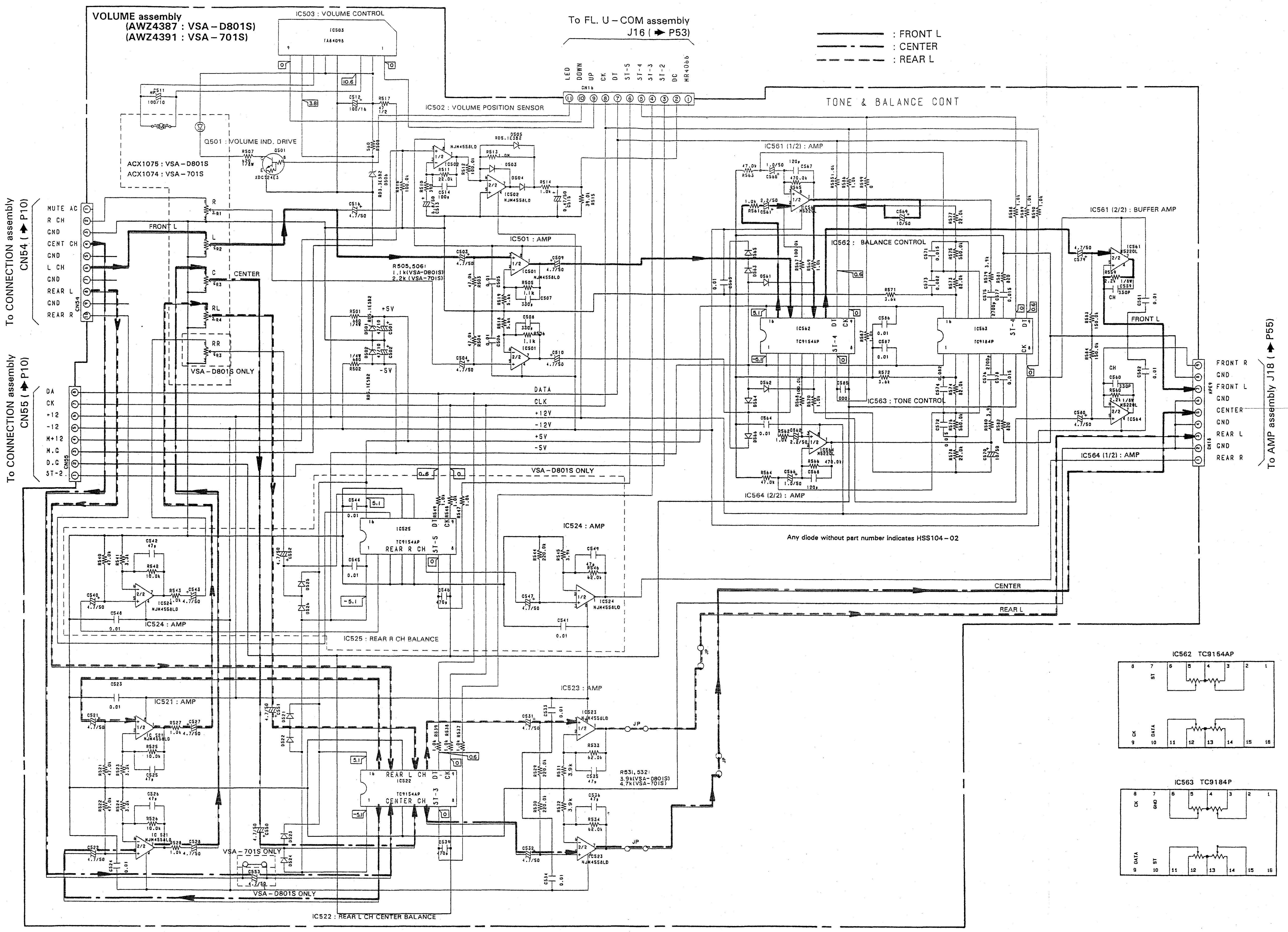
3.7 VOLUME ASSEMBLY


To AMP assembly J18 (➡ P57)
To FL. U-COM assembly J16 (➡ P52)
VOLUME assembly (AWZ4387 : VSA-D801S)
(AWZ4391 : VSA-701S)
ANP1591-A
TONE&BALANCE CONT
CMK-1405X
VOL POSITION SENS
MOTER DRIVER
CN16
CN18
VSA-701S ONLY
VSA-D801S ONLY
SURR-L CH LEVEL
SURR-C CH LEVEL
SURR-R CH LEVEL
L/R BUFFER AMP
TC9154AP
M5220
RC4558
TA8409S
AWK
AWZ
4387
VR501
IC563
IC523
IC524
IC525
IC522
IC561
IC562
IC564
IC501
IC521
IC503
Q501
To CONNECTION assembly CN55 (➡ P11)
To CONNECTION assembly CN54 (➡ P12)

This P. C. B. connection diagram is viewed from the foil side.

3.8 S TERM ASSEMBLY


To A/V FUNCTION
assembly J37(➡ P31)
To FL. U-COM assembly
J28 Pin6-Pin8
(➡ P53)
7951.1
7951.2
MUTE
12V
GND
VIDEO
CN951
KPE6
Y
GND
C
CN952KPC3
S TERM assembly (AWQ1017)
IC951 : Y func.
IC951
LA7951
IC952 : C func.
IC952
LA7951
Q952 : Y DRIVER
2SC2458
Q951 : C DRIVER
2SC2458
Q951
VCR1
EN951 AKP1064 -1/2
LD
EN951 AKP1064 -2/2
VCR1
OUT
EN952 AKP1064 -1/2
MON
OUT
EN952 AKP1064 -2/2
To A/V FUNCTION
assembly SG
(➡ P31)
SG
R955
1.0k
R956
1.0k
R998
22.0k
C985
10/50
C987
10/50
D951
D952
D954
D955
D956
D957
C991
10/50
C990
10/50
C952
10/50
C951
10/50
C989
10/50
R952
75
R992
75
R951
75
R993
75
R958
1.0k
C966
47/25
L951
82
C958
0.01
C964
100/25
L953
82
C968
0.01
C970
47/25
R963
100
R964
150
1/2W
C971
470/10
R971
68
R970
10.0k
C972
NP
1.0/50
R968
10.0k
C974
470/10
R974
68
R973
10.0k
R994
68
C973
NP
1.0/50
R972
10.0k
R989
560
1/2
RD5.6ESB2
D953
C984
100/25
L952
82
R995
68
R962
1.2k
C967
0.01
C969
47/25
R966
100
R965
1.2k
R967
150
1/2W
R957
1.0k
C992
10/50
R960
1.0k
R959
1.0k
L954
82
C956
47/25
C959
0.01
C965
100/25
5.3
11.5
3
11.6
3
0
3.0
4.2
3.3
14
8
1
7
C
Y
B
E
Any diode without part number indicates HSS104-02
2
3
4
5
6
A
B
C
D
1
2
3
4
5
6
A
B
C
D


VOLUME assembly
(AWZ4387 : VSA-D801S)
(AWZ4391 : VSA-701S)
IC503 : VOLUME CONTROL
TA6409S
IC502 : VOLUME POSITION SENSOR
Q501 : VOLUME IND. DRIVE
ACX1075 : VSA-D801S
ACX1074 : VSA-701S
To FL. U-COM assembly
J16 (➔ P53)
LED
DOWN
UP
CK
DT
ST-5
ST-4
ST-3
ST-2
DC
MR4066
CN16
: FRONT L
: CENTER
: REAR L
TONE & BALANCE CONT
To CONNECTION assembly
CN54 (➔ P10)
MUTE AC
R CH
GND
CENT CH
GND
L CH
GND
REAR L
GND
REAR R
CN54
FRONT L
CENTER
VSA-D801S ONLY
To CONNECTION assembly
CN55 (➔ P10)
DA
CK
+12
-12
M+12
M.G
D.G
ST-2
CN55
DATA
CLK
+12V
-12V
+5V
-5V
IC501 : AMP
R505, 506:
1.1k(VSA-D801S)
2.2k (VSA-701S)
IC561 (1/2) : AMP
IC562 : BALANCE CONTROL
IC563 : TONE CONTROL
IC564 (2/2) : AMP
IC564 (1/2) : AMP
IC561 (2/2) : BUFFER AMP
FRONT L
FRONT R
GND
FRONT L
GND
CENTER
GND
REAR L
GND
REAR R
CN18
To AMP assembly J18 (➔ P55)
VSA-D801S ONLY
IC525
TC9154AP
REAR R CH
ST-5
IC524 : AMP
IC525 : REAR R CH BALANCE
CENTER
REAR L
IC521 : AMP
IC523 : AMP
JP
R531, 532:
3.9k(VSA-D801S)
4.7k(VSA-701S)
REAR L CH
IC522
TC9154AP
CENTER CH
ST-3
VSA-701S ONLY
VSA-D801S ONLY
IC522 : REAR L CH CENTER BALANCE
IC562 TC9154AP
IC563 TC9184P
ST
CK
DATA
GND

Any diode without part number indicates HSS104-02

A

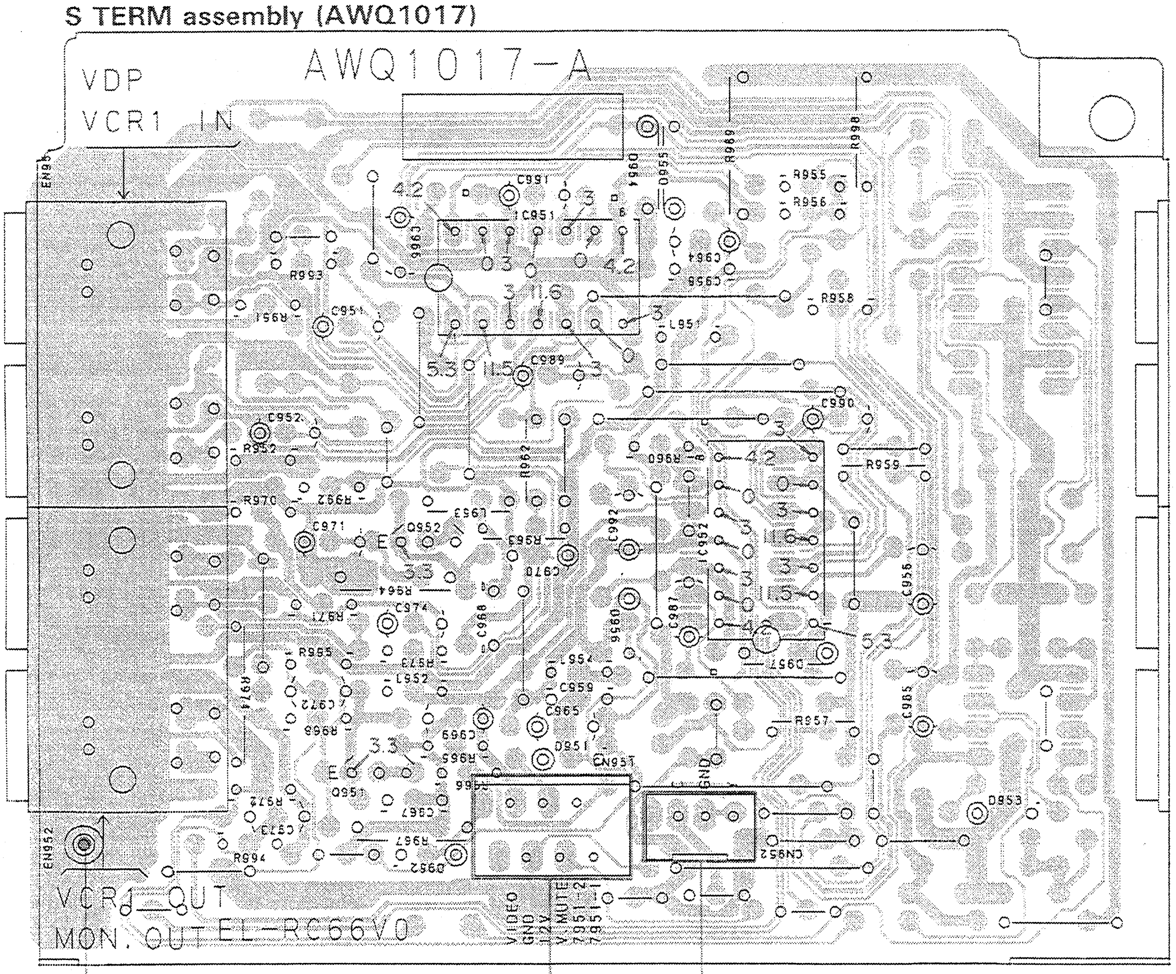
B

C

This P. C. B. connection diagram is viewed from the foil side.

D

S TERM assembly (AWQ1017)


AWQ1017-A
VDP
VCR1 IN
VCR1 OUT
MON. OUT
EL-RC66V0
EN953
EN952
EN951
CN952
GND
VIDEO
GND
12V
V.MUTE
7951-2
7951-1
IC952
Q951
Q952
D951
D952
D953
C951
C952
C954
C955
C956
C957
C959
C965
C967
C970
C971
C972
C973
C974
C984
C985
C987
C989
C990
C991
C992
R951
R952
R955
R956
R957
R958
R959
R960
R962
R963
R964
R965
R966
R967
R970
R971
R972
R973
R974
R989
R992
R993
R994
R995
R998
L951
L952
L953
L954
E
4.2
3
11.6
5.3
11.5
3.3

To FL. U-COM assembly CN28 (➡ P52)

To A/V FUNCTION assembly J37 (➡ P29)

To A/V FUNCTION assembly SG (➡ P30)

This P. C. B connection diagram is viewed from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

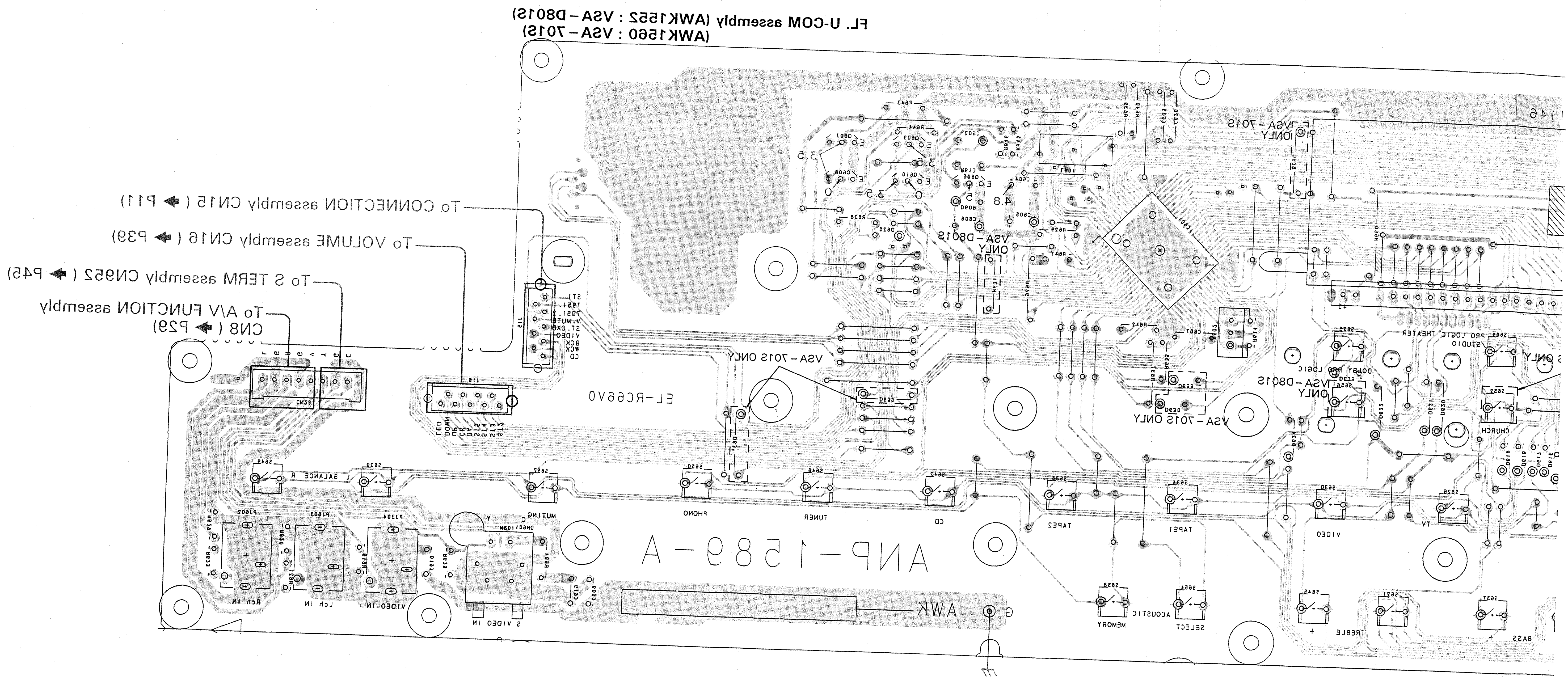
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	E or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

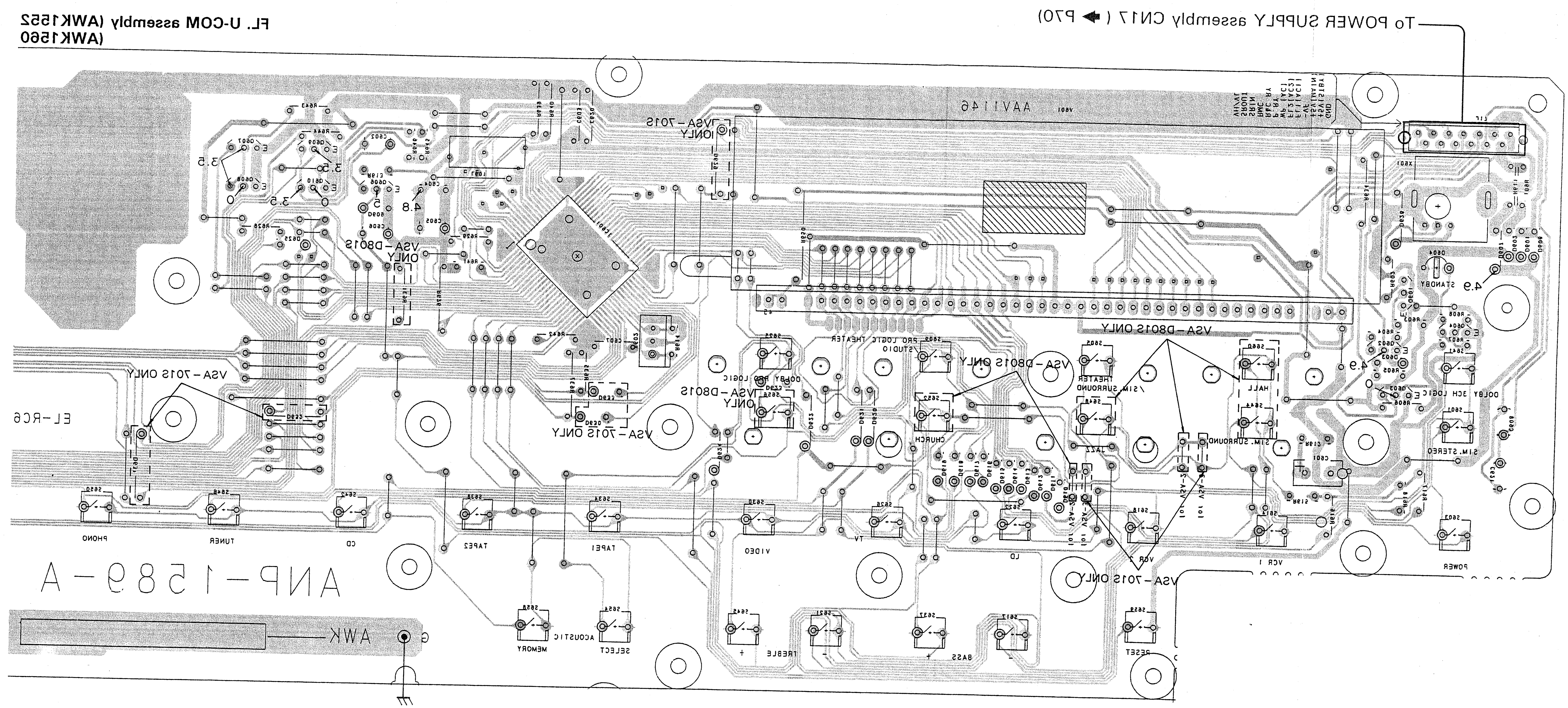
3.9 FL. U-COM ASSEMBLY

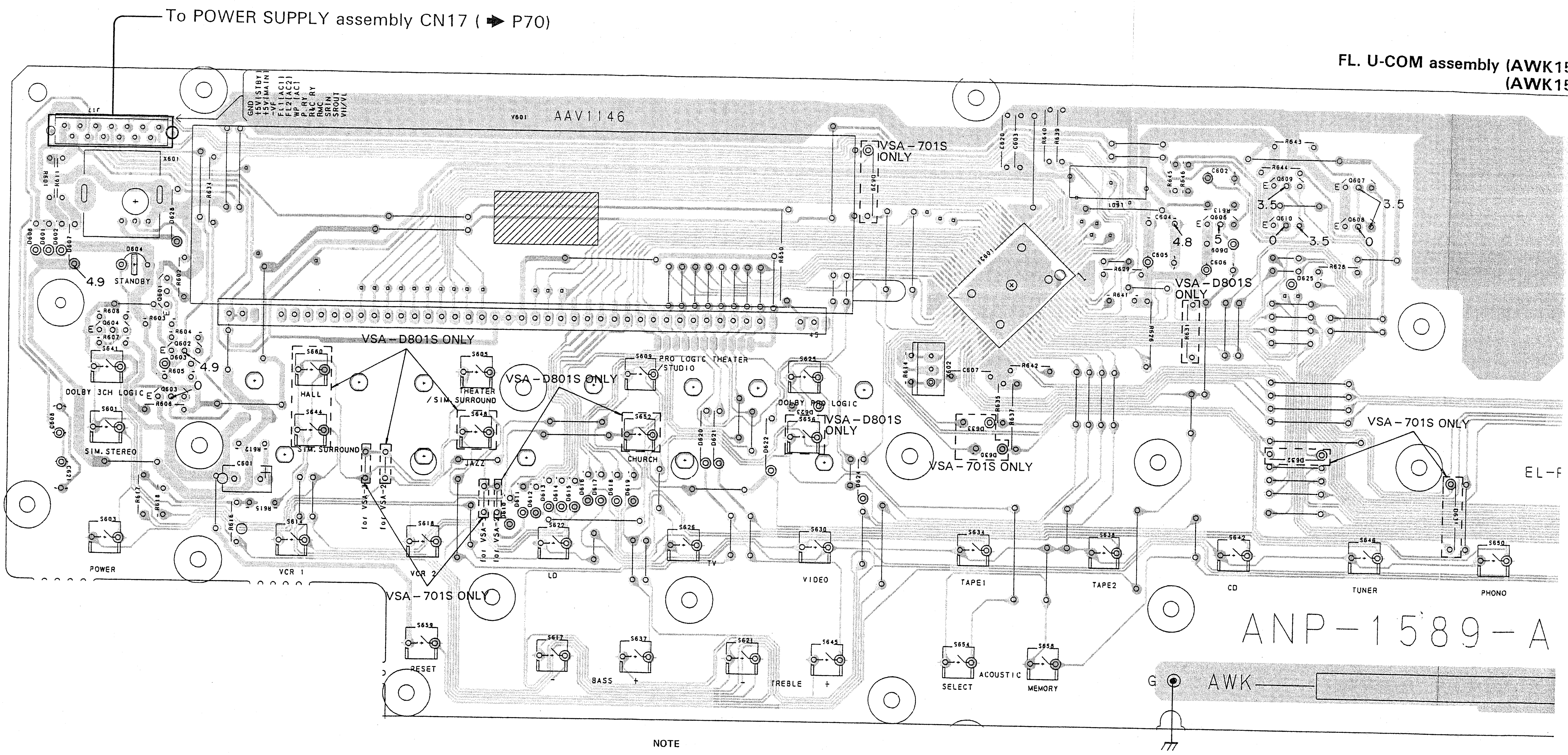

FL. U-COM assembly (AWK1552 : VSA-D801S)
(AWK1560 : VSA-701S)
To CONNECTION assembly CN15 (➡ P11)
To VOLUME assembly CN16 (➡ P39)
To S TERM assembly CN952 (➡ P45)
To A/V FUNCTION assembly CN8 (➡ P29)
EL-RC66V0
ANP-1589-A
AWK
VSA-701S ONLY
VSA-D801S ONLY
BALANCE
PHONO
TUNER
CD
TAPE2
TAPE1
VIDEO
TV
MEMORY
ACOUSTIC
SELECT
TREBLE
BASS
MUTING
Rch IN
Lch IN
VIDEO IN
S VIDEO IN
DOLBY PRO LOGIC
PRO LOGIC THEATER
STUDIO
CHURCH

This P. C. B. connection diagram is viewed from the foil side.

FL. U-COM assembly (AWK1552
(AWK1560)

To POWER SUPPLY assembly CN17 (➡ P70)


VSA-701S ONLY
VSA-D801S ONLY
ANP-1589-A
AWK
AAV1146
EL-RC6
PHONO
TUNER
CD
TAPE2
TAPE1
VIDEO
TV
LD
VCR 2
VCR 1
POWER
MEMORY
ACOUSTIC
SELECT
TREBLE
BASS
RESET
DOLBY PRO LOGIC
PRO LOGIC THEATER
STUDIO
CHURCH
JAZZ
HALL
THEATER
SIM. SURROUND
SIM. STEREO
DOLBY 3CH LOGIC
STANDBY
3.5
4.8
4.9


To POWER SUPPLY assembly CN17 (➡ P70)
FL. U-COM assembly (AWK15
(AWK15
AAV1146
J17
GND
+5V(STBY)
+5V(MAIN)
-VF
F1(AC1)
F2(AC2)
WP(AC)
P.RY
RMC
SRIN
SROUT
VU/VL
VSA-701S ONLY
VSA-D801S ONLY
4.9
STANDBY
DOLBY 3CH LOGIC
SIM. STEREO
POWER
HALL
SIM. SURROUND
THEATER /SIM. SURROUND
JAZZ
PRO LOGIC THEATER /STUDIO
CHURCH
DOLBY PRO LOGIC
VCR 1
VCR 2
LD
TV
VIDEO
TAPE1
TAPE2
CD
TUNER
PHONO
RESET
BASS
TREBLE
SELECT
ACOUSTIC
MEMORY
4.8
5
3.5
0
EL-F
ANP-1589-A
AWK
G

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

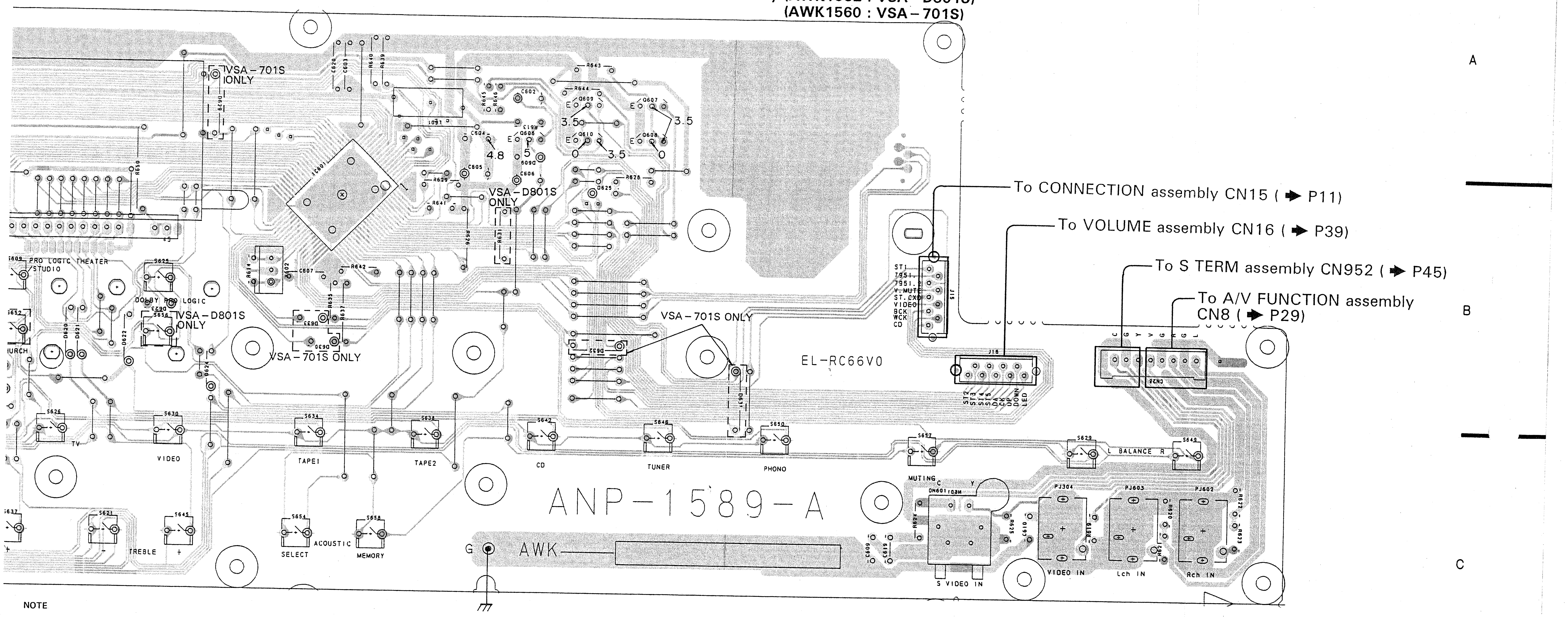
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E Q504	E or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

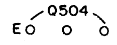
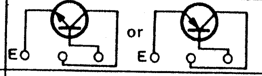
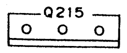
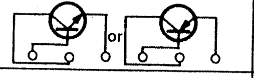
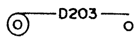
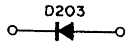
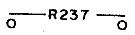
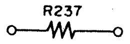
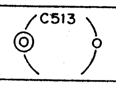
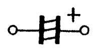
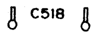
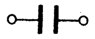
3. The capacitor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

FL. U-COM assembly (AWK1552 : VSA−D801S)
(AWK1560 : VSA−701S)


VSA−701S ONLY
VSA−D801S ONLY
VSA−701S ONLY
VSA−D801S ONLY
VSA−701S ONLY
IC601
3.5
3.5
3.5
0
4.8
5
Q606
Q607
Q608
Q609
Q610
Q625
PRO LOGIC THEATER STUDIO
DOLBY PRO LOGIC
S609
S625
S626
S630
S631
S634
S642
S648
S650
S652
S629
S649
S621
S645
S654
S658
TV
VIDEO
TAPE1
TAPE2
CD
TUNER
PHONO
MUTING
BALANCE
TREBLE
SELECT
ACOUSTIC
MEMORY
ANP−1589−A
EL-RC66V0
G
AWK
J15
ST1
7951
7951
V.MUTE
ST.CXO
VIDEO
BCK
WCK
CD
J16
ST2
ST3
ST4
DA
CK
UP
DOWN
LED
CN601
PJ304
PJ603
PJ602
VIDEO IN
Lch IN
Rch IN
S VIDEO IN
To CONNECTION assembly CN15 (➡ P11)
To VOLUME assembly CN16 (➡ P39)
To S TERM assembly CN952 (➡ P45)
To A/V FUNCTION assembly CN8 (➡ P29)

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

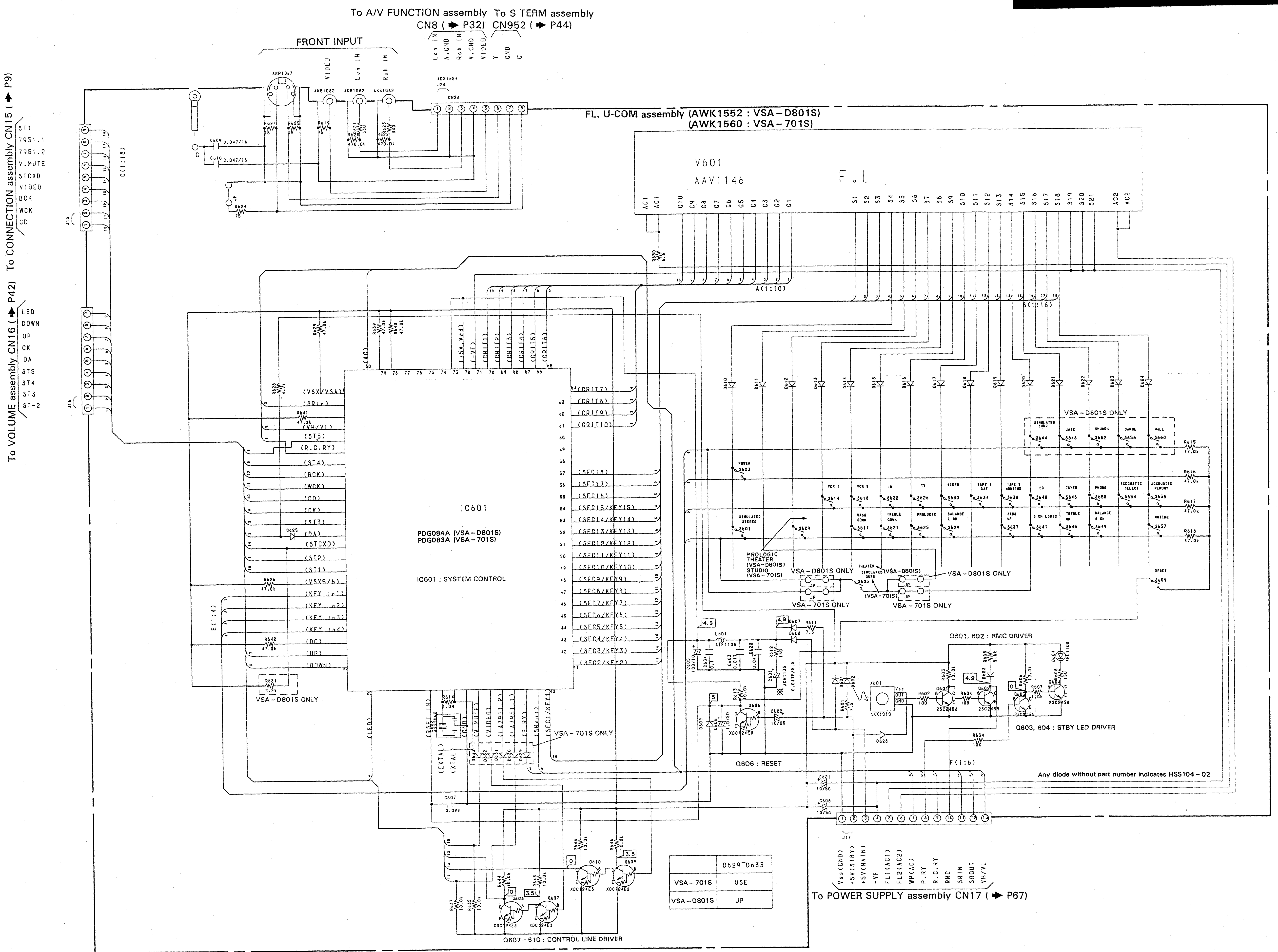
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
 Q504		Transistor
 Q215		Radiator type transistor
 D203	 D203	Diode
 R237	 R237	Resistor
 C513		Capacitor (Polarized)
 C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

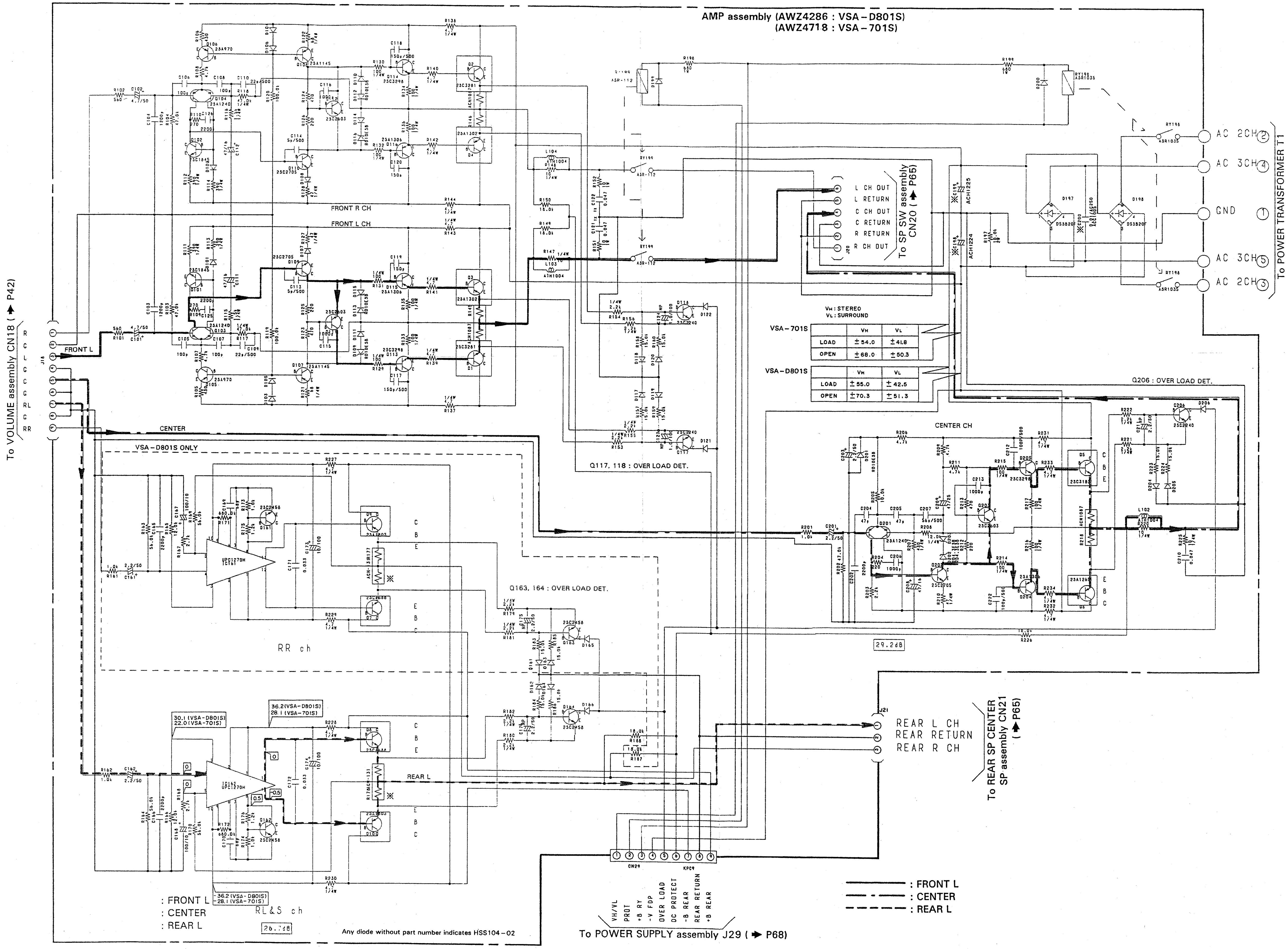
3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

This P. C. B connection diagram is viewed from the parts mounted side.

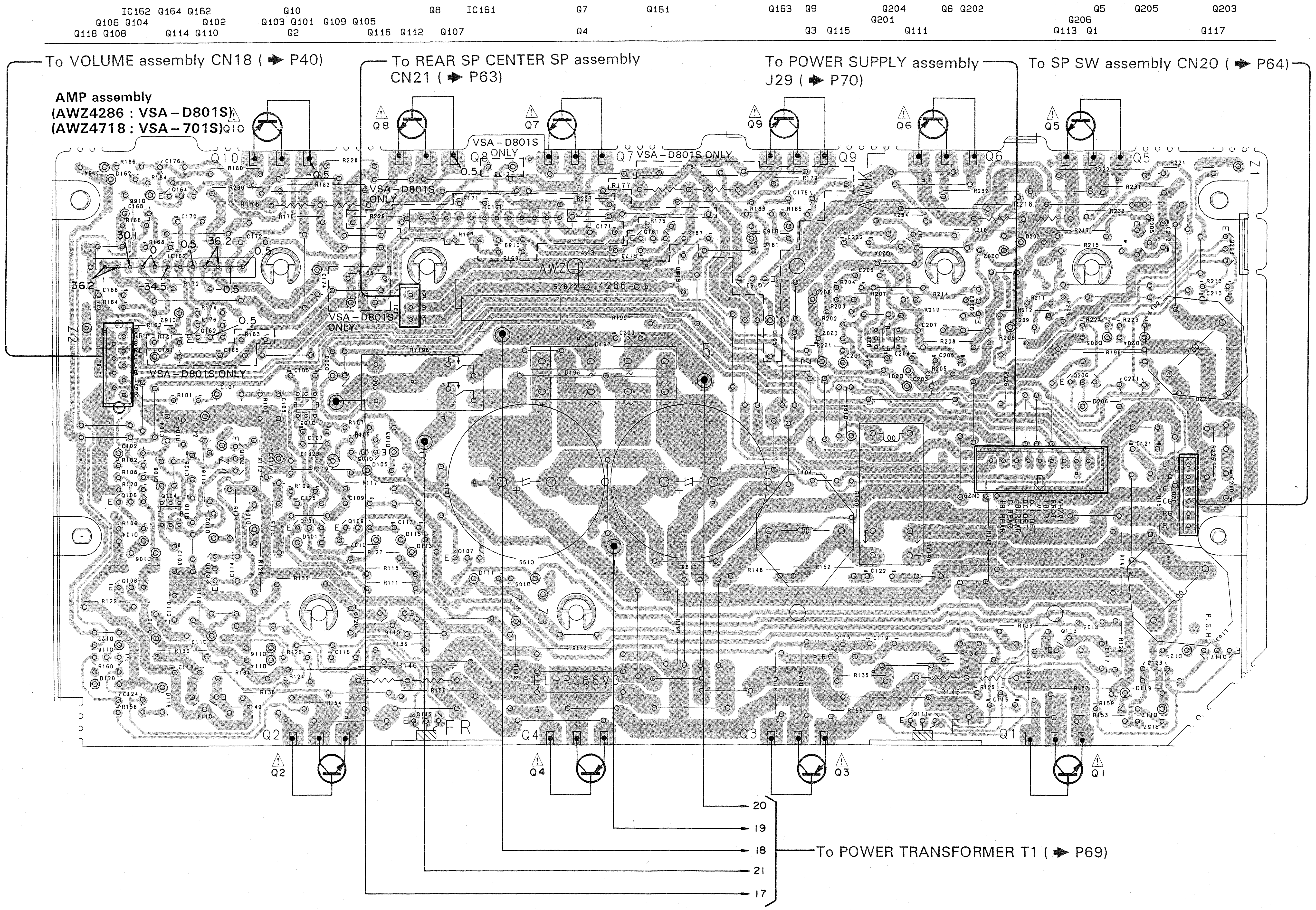

To A/V FUNCTION assembly
CN8 (➡ P32)
To S TERM assembly
CN952 (➡ P44)
FRONT INPUT
Lch IN
A.GND
Rch IN
V.GND
VIDEO
Y
GND
C
AKP1067
AKB1062
VIDEO
Lch IN
Rch IN
ADX1654
J28
CN28
To CONNECTION assembly CN15 (➡ P9)
ST1
79S1.1
79S1.2
V.MUTE
STCXD
VIDEO
BCK
WCK
CD
J15
C(1:10)
To VOLUME assembly CN16 (➡ P42)
LED
DOWN
UP
CK
DA
STS
ST4
ST3
ST-2
J16
FL. U-COM assembly (AWK1552 : VSA-D801S)
(AWK1560 : VSA-701S)
V601
AAV1146
F.L
A(1:10)
B(1:16)
IC601
PDG084A (VSA-D801S)
PDG083A (VSA-701S)
IC601 : SYSTEM CONTROL
(VSX/VSA)
(SRin)
(VH/VL)
(STS)
(R.C.RY)
(ST4)
(BCK)
(WCK)
(CD)
(CK)
(ST3)
(DA)
(STCXD)
(ST2)
(ST1)
(VSX5/6)
(KEY in1)
(KEY in2)
(KEY in3)
(KEY in4)
(DC)
(UP)
(DOWN)
(GRIT7)
(GRIT8)
(GRIT9)
(GRIT10)
(SEG18)
(SEG17)
(SEG16)
(SEG15/KEY15)
(SEG14/KEY14)
(SEG13/KEY13)
(SEG12/KEY12)
(SEG11/KEY11)
(SEG10/KEY10)
(SEG9/KEY9)
(SEG8/KEY8)
(SEG7/KEY7)
(SEG6/KEY6)
(SEG5/KEY5)
(SEG4/KEY4)
(SEG3/KEY3)
(SEG2/KEY2)
(+5V)
(-VF)
(GRIT1)
(GRIT2)
(GRIT3)
(GRIT4)
(GRIT5)
(GRIT6)
(AC)
(LED)
(RESET IN)
(EXTAL)
(XTAL)
(GND)
(V.MUTE)
(VIDEO)
(LA79S1.2)
(LA79S1.1)
(P.RY)
(SRout)
(SFC1/KEY1)
E(1:4)
VSA-D801S ONLY
VSA-701S ONLY
VSA-D801S ONLY
SIMULATED SURR
JAZZ
CHURCH
DANCE
HALL
POWER
VCR 1
VCR 2
LD
TV
VIDEO
TAPE 1 SAT
TAPE 2 MONITOR
CD
TUNER
PHONO
ACCOUSTIC SELECT
ACCOUSTIC MEMORY
SIMULATED STEREO
BASS DOWN
TREBLE DOWN
PROLOGIC
BALANCE L CH
BASS UP
3 CH LOGIC
TREBLE UP
BALANCE R CH
MUTING
PROLOGIC THEATER (VSA-D801S)
STUDIO (VSA-701S)
VSA-D801S ONLY
THEATER (VSA-D801S)
SIMULATED SURR (VSA-701S)
VSA-D801S ONLY
VSA-701S ONLY
VSA-701S ONLY
RESET
Q601, 602 : RMC DRIVER
Q603, 604 : STBY LED DRIVER
Q606 : RESET
X601
AXX1010
F(1:16)
Any diode without part number indicates HSS104-02
J17
Vss(GND)
+5V(STBY)
+5V(MAIN)
-VF
FL1(AC1)
FL2(AC2)
WP(AC)
P.RY
R.C.RY
RMC
SRIN
SROUT
VH/VL
To POWER SUPPLY assembly CN17 (➡ P67)
Q607-610 : CONTROL LINE DRIVER
VSA-701S ONLY

	D629~D633
VSA-701S	USE
VSA-D801S	JP

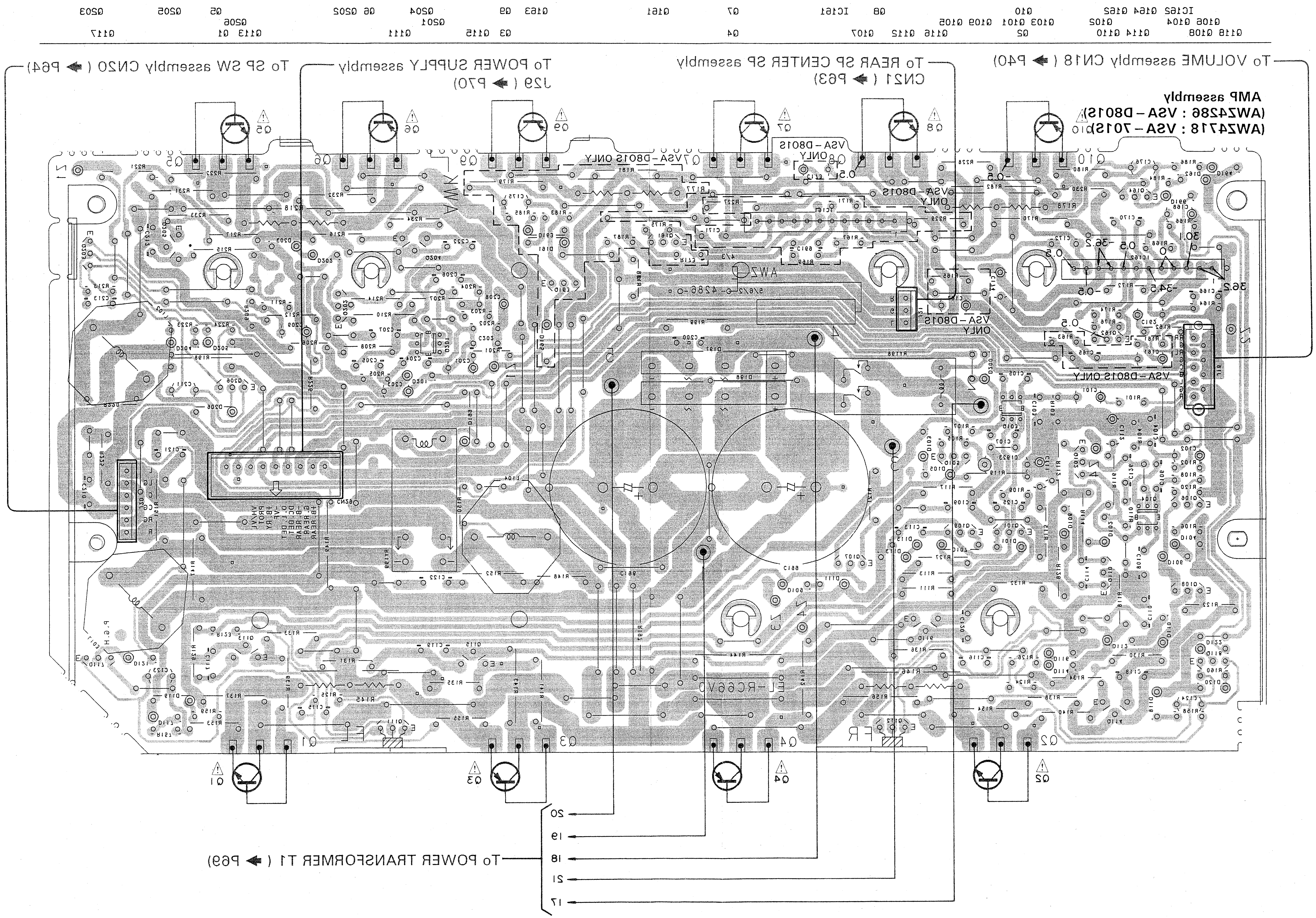
3.10 AMP ASSEMBLY


AMP assembly (AWZ4286 : VSA-D801S)
(AWZ4718 : VSA-701S)
FRONT R CH
FRONT L CH
FRONT L
CENTER
VSA-D801S ONLY
RR ch
RL&S ch
REAR L
CENTER CH
Q117, 118 : OVER LOAD DET.
Q163, 164 : OVER LOAD DET.
Q206 : OVER LOAD DET.
VH : STEREO
VL : SURROUND
VSA-701S
VH
VL
LOAD ±54.0 ±41.8
OPEN ±68.0 ±50.3
VSA-D801S
VH
VL
LOAD ±55.0 ±42.5
OPEN ±70.3 ±51.3
30.1 (VSA-D801S)
22.0 (VSA-701S)
36.2 (VSA-D801S)
28.1 (VSA-701S)
29.2dB
26.7dB
To VOLUME assembly CN18 (➡ P42)
L CH OUT
L RETURN
C CH OUT
C RETURN
R RETURN
R CH OUT
To SP SW assembly CN20 (➡ P65)
AC 2CH ②
AC 3CH ④
GND ①
AC 3CH ⑤
AC 2CH ③
To POWER TRANSFORMER T1
REAR L CH
REAR RETURN
REAR R CH
To REAR SP CENTER SP assembly CN21 (➡ P65)
VH/VL
PROT
+B RY
-V FDP
OVER LOAD
DC PROTECT
-B REAR
REAR RETURN
+B REAR
To POWER SUPPLY assembly J29 (➡ P68)
: FRONT L
: CENTER
: REAR L
Any diode without part number indicates HSS104-02

This P. C. B connection diagram is viewed from the parts mounted side.

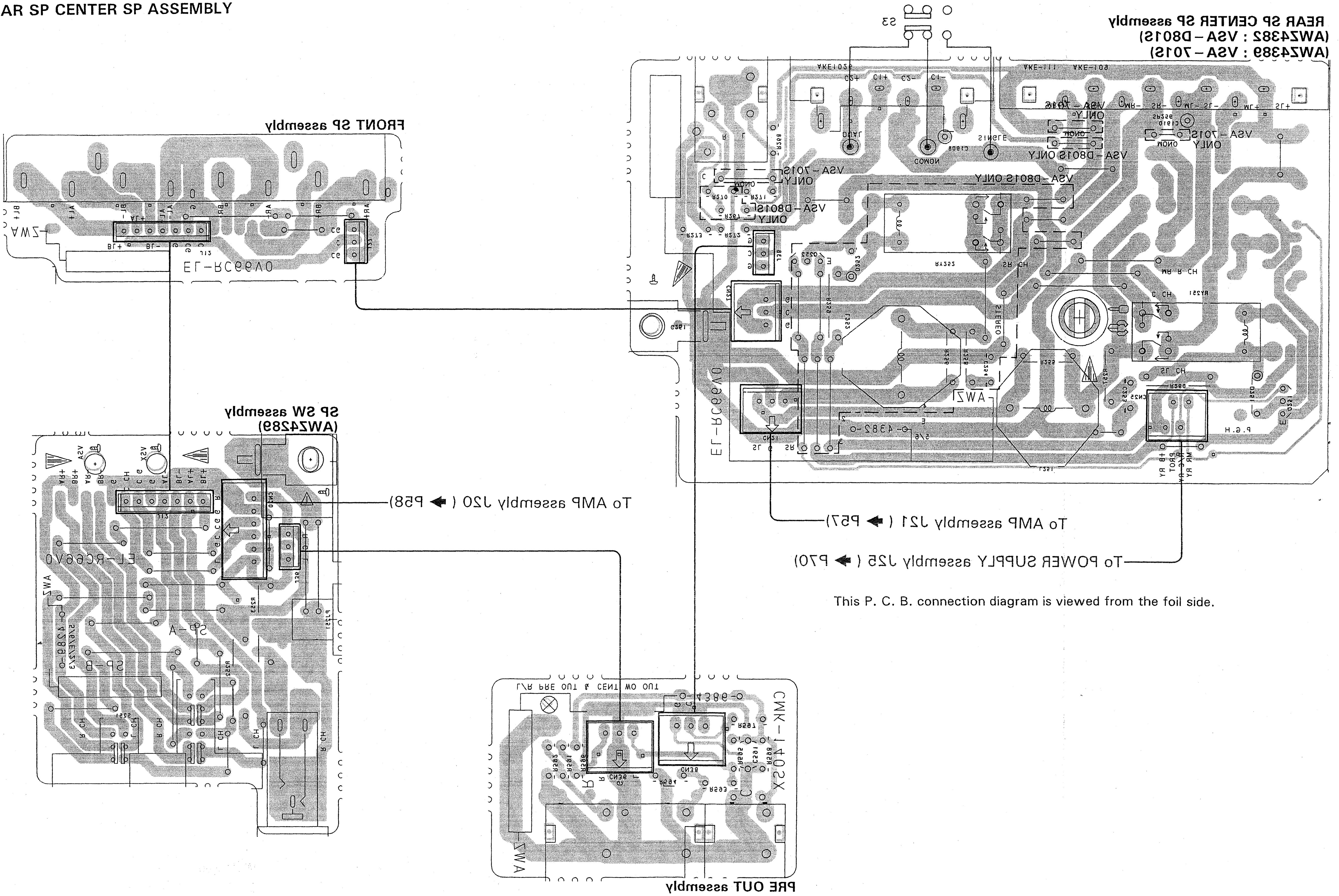

IC162 Q164 Q162
Q106 Q104 Q102
Q118 Q108 Q114 Q110
Q10
Q103 Q101 Q109 Q105
Q2
Q8 IC161
Q116 Q112 Q107
Q7
Q4
Q161
Q163 Q9
Q3 Q115
Q204
Q201
Q111
Q6 Q202
Q5 Q205 Q203
Q206
Q113 Q1
Q117
To VOLUME assembly CN18 (➨ P40)
To REAR SP CENTER SP assembly CN21 (➨ P63)
To POWER SUPPLY assembly J29 (➨ P70)
To SP SW assembly CN20 (➨ P64)
AMP assembly
(AWZ4286 : VSA – D801S)
(AWZ4718 : VSA – 701S)
Q10
Q8
Q7
Q9
Q6
Q5
VSA – D801S ONLY
VSA – D801S ONLY
VSA – D801S ONLY
VSA – D801S ONLY
VSA – D801S ONLY
AWZ 4286
AWK
EL-RC66V0
FR
Q2
Q4
Q3
Q1
P.G.H
VH/VL
PROT
HB.RY
VF
DC.DET
TB.REAR
G.REAR
TB.REAR
20
19
18
21
17
To POWER TRANSFORMER T1 (➨ P69)

This P. C. B. connection diagram is viewed from the foil side.


5
4
3
2
1
A
B
C
D
AMP assembly
(AWZ4286 : VSA-D801S)
(AWZ4718 : VSA-701S)
To SP SW assembly CN20 (→ P64)
To POWER SUPPLY assembly J29 (→ P70)
To REAR SP CENTER SP assembly CN21 (→ P63)
To VOLUME assembly CN18 (→ P40)
To POWER TRANSFORMER T1 (→ P69)
20
19
18
21
17
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
VSA-D801S ONLY
EL-RC66VO
AWZ
5/6/2-4286-0
IC161
IC162

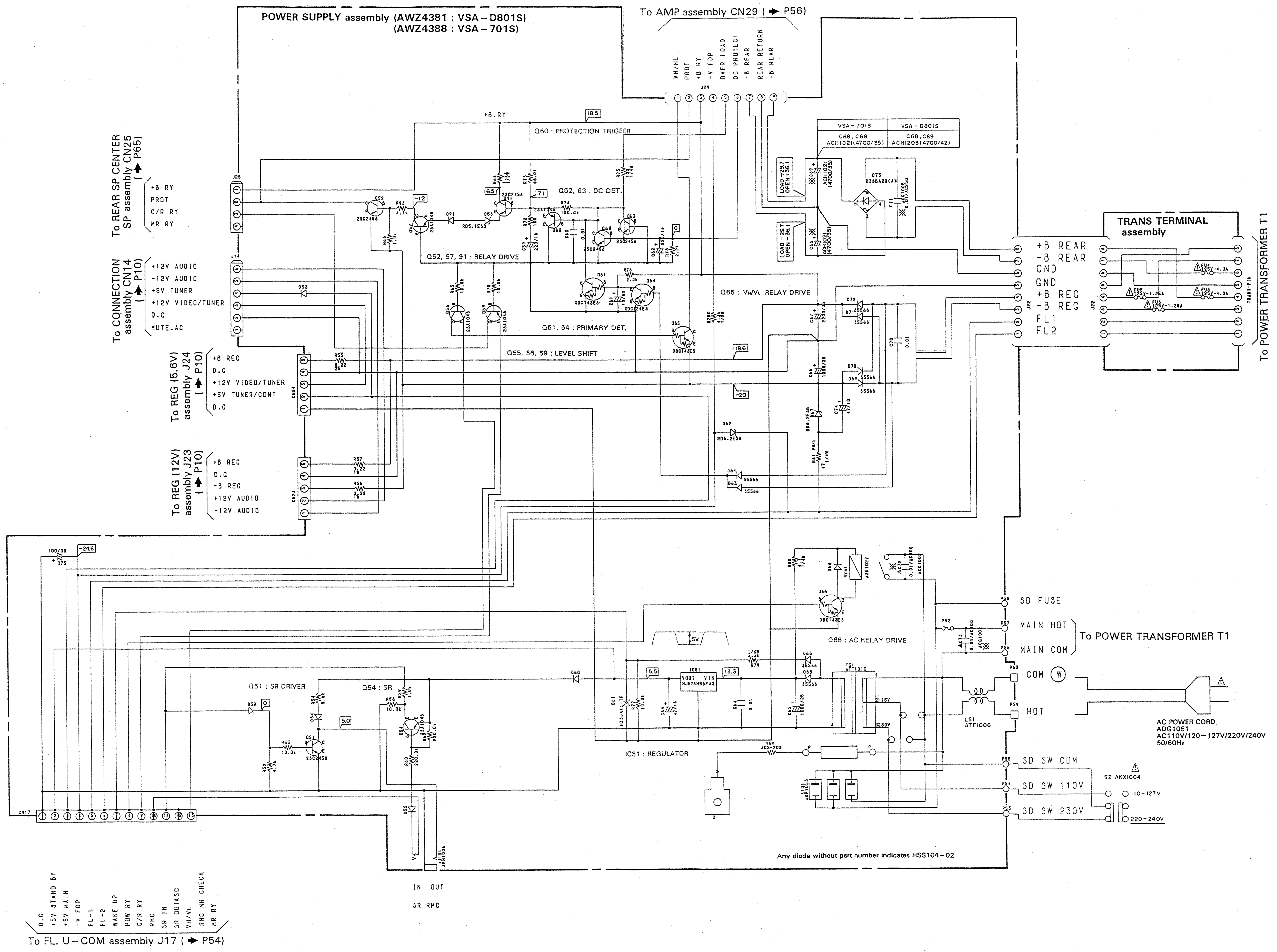
6
5
4
3
2
1

3.11 SP SW ASSEMBLY, FRONT SP ASSEMBLY, PRE OUT ASSEMBLY AND REAR SP CENTER SP ASSEMBLY

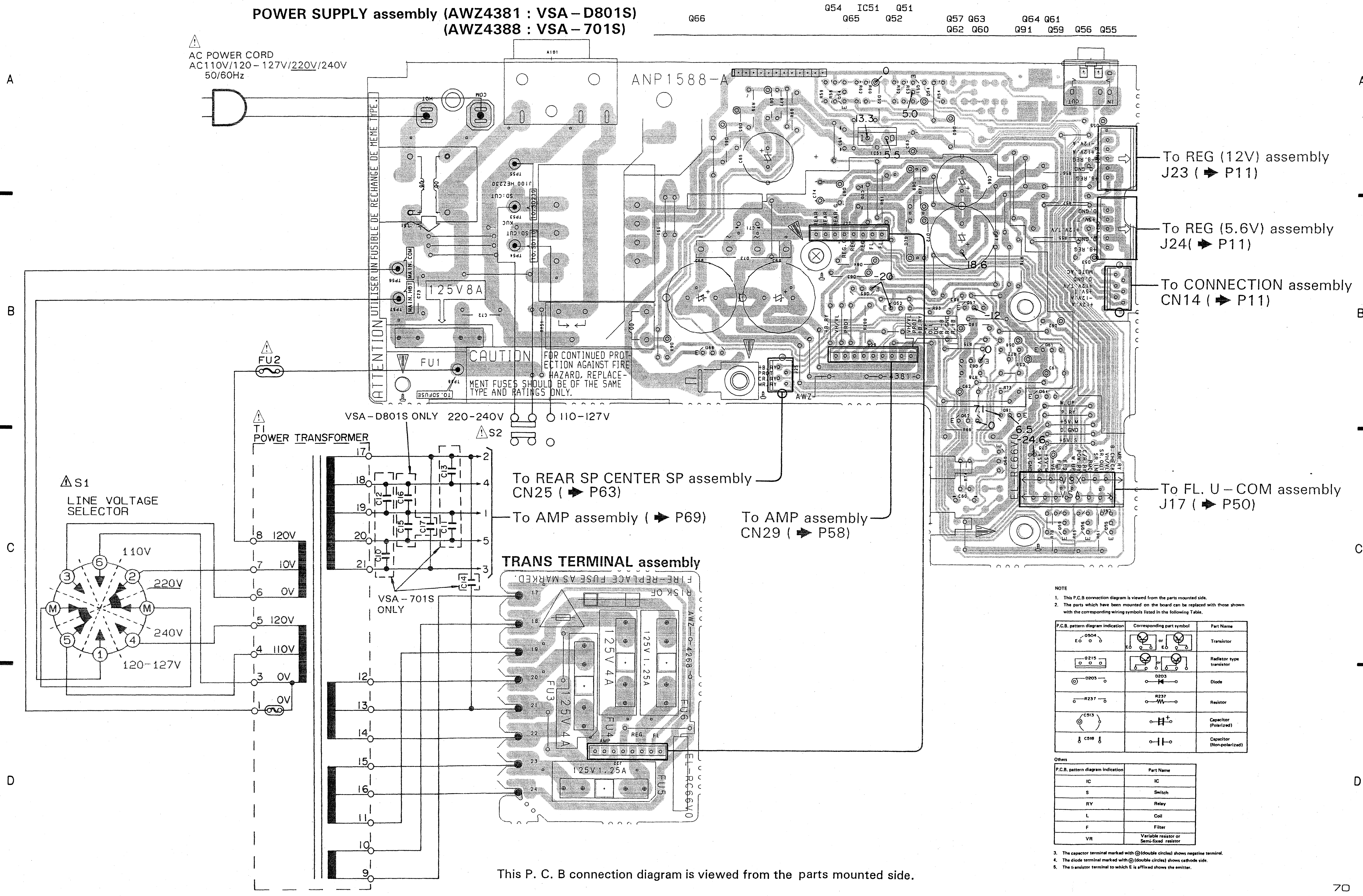

REAR SP CENTER SP assembly
(AWZ4382 : VSA-D801S)
(AWZ4389 : VSA-701S)
S3
VSA-701S ONLY
VSA-D801S ONLY
FRONT SP assembly
SP SW assembly
(AWZ4289)
To AMP assembly J20 (➡ P58)
To AMP assembly J21 (➡ P57)
To POWER SUPPLY assembly J25 (➡ P70)
PRE OUT assembly
L/R PRE OUT & CENT WO OUT
A
B
C
D

This P. C. B. connection diagram is viewed from the foil side.

3.12 POWER SUPPLY ASSEMBLY AND TRANS TERMINAL ASSEMBLY


POWER SUPPLY assembly (AWZ4381 : VSA-D801S)
(AWZ4388 : VSA-701S)
To AMP assembly CN29 (➔ P56)
VH/VL
PROT
+B RY
-V FDP
OVER LOAD
DC PROTECT
-B REAR
REAR RETURN
+B REAR
J29
+B.RY
18.5
Q60 : PROTECTION TRIGEER
To REAR SP CENTER SP assembly CN25 (➔ P65)
J25
+B RY
PROT
C/R RY
MR RY
Q62, 63 : DC DET.
Q52, 57, 91 : RELAY DRIVE
To CONNECTION assembly CN14 (➔ P10)
J14
+12V AUDIO
-12V AUDIO
+5V TUNER
+12V VIDEO/TUNER
D.G
MUTE.AC
Q65 : VH/VL RELAY DRIVE
Q61, 64 : PRIMARY DET.
Q55, 56, 59 : LEVEL SHIFT
To REG (5.6V) assembly J24 (➔ P10)
CN24
+B REG
D.G
+12V VIDEO/TUNER
+5V TUNER/CONT
D.G
To REG (12V) assembly J23 (➔ P10)
CN23
+B REG
D.G
-B REG
+12V AUDIO
-12V AUDIO
VSA-701S
VSA-D801S
C68, C69
ACH1021(4700/35)
C68, C69
ACH1203(4700/42)
LOAD+29.7
OPEN+35.1
LOAD-29.7
OPEN-35.1
D73
D3SBA20(A)
TRANS TERMINAL assembly
+B REAR
-B REAR
GND
GND
+B REG
-B REG
FL1
FL2
J22
To POWER TRANSFORMER T1
Q66 : AC RELAY DRIVE
RY51
ASR1027
SD FUSE
MAIN HOT
MAIN COM
To POWER TRANSFORMER T1
COM
HOT
L51
ATF1006
AC POWER CORD
ADG1051
AC110V/120-127V/220V/240V
50/60Hz
IC51 : REGULATOR
IC51
VOUT VIN
NJM78M05FA
5.5
13.3
T51
ATF1015
211.5V
230V
SD SW COM
SD SW 110V
SD SW 230V
S2 AKX1004
110-127V
220-240V
Q51 : SR DRIVER
Q54 : SR
5.0
-24.6
C75
100/35
CN17
IN OUT
SR RMC
Any diode without part number indicates HSS104-02
D.G
+5V STAND BY
+5V MAIN
-V FDP
FL-1
FL-2
WAKE UP
POW RY
C/R RY
RMC
SR IN
SR OUTASC
VH/VL
RHC MR CHECK
MR RY
To FL. U-COM assembly J17 (➔ P54)

POWER SUPPLY assembly (AWZ4381 : VSA-D801S)
(AWZ4388 : VSA-701S)


Q66
Q54 IC51 Q51
Q65 Q52
Q57 Q63
Q62 Q60
Q64 Q61
Q91 Q59 Q56 Q55
⚠
AC POWER CORD
AC110V/120-127V/220V/240V
50/60Hz
A
B
C
D
ANP1588-A
HOT
COM
TP55
SD:CUT
TP53
SD:CUT
TP54
TP56
TP57
MAIN.HOT
MAIN.COM
125V8A
ATTENTION UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.
CAUTION FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
FU1
TO.SDFUSE
⚠
FU2
3.3
5.0
5.5
18.6
20
12
7.1
6.5
-24.6
4381
AWZ
RC66V0
To REG (12V) assembly
J23 (➧ P11)
To REG (5.6V) assembly
J24(➧ P11)
To CONNECTION assembly
CN14 (➧ P11)
To FL. U-COM assembly
J17 (➧ P50)
VSA-D801S ONLY
220-240V
110-127V
⚠S2
⚠
T1
POWER TRANSFORMER
⚠S1
LINE VOLTAGE
SELECTOR
110V
220V
240V
120-127V
M
M
8 120V
7 10V
6 0V
5 120V
4 110V
3 0V
0V
17
18
19
20
21
12
13
14
15
16
11
10
9
C12
C16
C13
C15
C17
C11
C10
C14
2
4
1
5
3
VSA-701S
ONLY
To REAR SP CENTER SP assembly
CN25 (➧ P63)
To AMP assembly (➧ P69)
To AMP assembly
CN29 (➧ P58)
TRANS TERMINAL assembly
FIRE-REPLACE FUSE AS MARKED.
RISK OF
125V4A
125V1.25A
FU3
FU4
FU6
FU5
AWZ-4268
AMP
REG
FL
EL-RC66V0

This P. C. B connection diagram is viewed from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

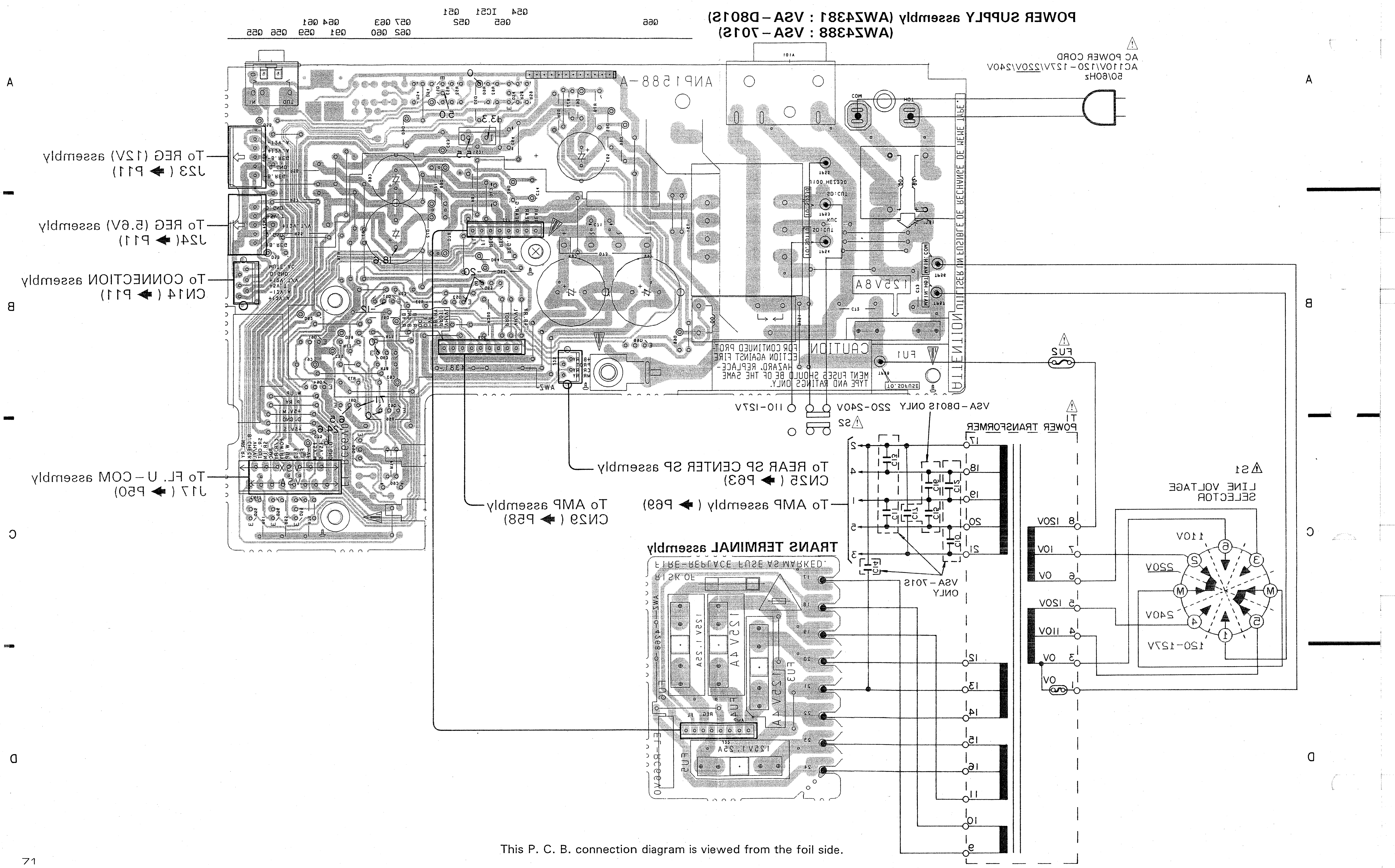
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E○ 0504 ○ ○	E○ ○ ○ or E○ ○ ○	Transistor
0215 ○ ○ ○	○ ○ ○ or ○ ○ ○	Radiator type transistor
◎ 0203 ○	D203 ○—▶|—○	Diode
○ R237 ○	R237 ○—W—○	Resistor
◎ C513 ○	○—‖—○ +	Capacitor (Polarized)
○ C518 ○	○—‖—○	Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

POWER SUPPLY assembly (AWZ4381 : VSA-D801S) (AWZ4388 : VSA-701S)


AC POWER CORD
AC110V/120-127V/220V/240V
50/60Hz
ANP1588-A
To REG (12V) assembly
J23 (➡ P11)
To REG (5.6V) assembly
J24 (➡ P11)
To CONNECTION assembly
CN14 (➡ P11)
To FL. U-COM assembly
J17 (➡ P50)
To AMP assembly
CN29 (➡ P58)
To REAR SP CENTER SP assembly
CN25 (➡ P63)
To AMP assembly (➡ P69)
TRANS TERMINAL assembly
CAUTION FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE MENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE
FIRE-REPLACE FUSE AS MARKED
RISK OF
FU1
FU2
FU3
FU4
FU5
125V8A
125V1.25A
125V4A
S2
110-127V
220-240V
VSA-D801S ONLY
VSA-701S ONLY
T1 POWER TRANSFORMER
S1 LINE VOLTAGE SELECTOR
110V
220V
240V
120-127V
120V
10V
0V
1
2
3
4
5
6
M
A
B
C
D

This P. C. B. connection diagram is viewed from the foil side.

4. PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56 × 10¹ → 561 .... RD1/8PM $\boxed{5}\boxed{6}\boxed{1}$ *J*
47kΩ → 47 × 10³ → 473 .... RD1/4PS $\boxed{4}\boxed{7}\boxed{3}$ *J*
0.5Ω → 0R5 .... RN2H $\boxed{0}\boxed{R}\boxed{5}$ *K*
1Ω → 010 .... RS1P $\boxed{0}\boxed{1}\boxed{0}$ *K*

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562 × 10¹ → 5621 .... RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ *F*

LIST OF ASSEMBLIES

Mark	No.	Description	Parts No.
NSP		FRONT SP ASSEMBLY	AWZ4261
NSP		TRANS TERMINAL ASSEMBLY	AWZ4268
◉		AMP ASSEMBLY	AWZ4286
◉		SP SW ASSEMBLY	AWZ4289
◉		POWER SUPPLY ASSEMBLY	AWZ4381
◉		REAR SP CENTER SP ASSEMBLY	AWZ4382
◉		REG (12V) ASSEMBLY	AWZ4266
◉		REG (5.6V) ASSEMBLY	AWZ4267
◉		AUDIO FUNCTION ASSEMBLY	AWZ4383
◉		A/V FUNCTION ASSEMBLY	AWZ4384
◉		CONNECTION ASSEMBLY	AWZ4385
NSP		PRE OUT ASSEMBLY	AWZ4386
◉		VOLUME ASSEMBLY	AWZ4387
◉		FL. U-COM ASSEMBLY	AWK1552
◉		DSP ASSEMBLY	AWZ4294
		S TERM ASSEMBLY	AWQ1017

FL. U-COM ASSEMBLY

Mark	No.	Description	Parts No.
	SEMICONDUCTORS		
	IC601	CONTROL MCU	PDG084A
	Q606-610		XDC124ES
	Q601-604		2SC2458
	D604	LED (RED)	AEL1108
	D601-603, 607-625, 628		HSS104-02
	SWITCHES		
	S601, 603, 605, 609, 614, S617, 618, 621, 622, 625, S626, 629, 630, 634, 637, S638, 641, 642, 644-646, S648-650, 652, 654, S656-660		ASG1034
	COIL		
	F601		ATF1108
	CAPACITORS		
	C601		ACH1135
	C606		CEAS010M50
	C602		CEAS100M50
	C605		CEAS101M10
	C608, 621		CEJA100M50
	C604		CKDYX104M25
	C607		CKPUYF223Z25
	C603, 609, 610, 620		CKPUYF473Z16
	RESISTORS		
	All Resistors		RD1/8PM□□□J
	OTHERS		
	REMOTE RECEIVER UNIT		AXX1010
	X602 (8.00MHZ)		ASS1015
	PIN JACK 1P		AKB1082
	SOCKET (DIN)		AKP1067
	V601	FL TUBE	AAV1146
	FL SPACER		AEB1120

S TERM ASSEMBLY

Mark	No.	Description	Parts No.
	SEMICONDUCTORS		
	IC951, 952	VIDEO SWITCH	LA7951
	Q951, 952		2SC2458
	D951, 952, 954-957		HSS104-02
	D953	ZENER DIODE	RD5.6ESB
	COILS		
	L951-954	AXIAL INDUCTOR	LAU820K
	CAPACITORS		
	C972, 973		CEANP010M50
	C951, 952, 985, 987, 989-992		CEAS100M50
	C964, 965		CEAS101M25

Mark	No.	Description	Parts No.
	C956, 966, 969, 970		CEAS470M25
	C971, 974		CEAS471M10
	C968		CKDYF103Z50
	C958, 959, 967		CKPUYF103Z25

RESISTORS

Mark	No.	Description	Parts No.
	R989		RD1/2PMF561J
	R964, 967		RD1/2PM151J
		Other Resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		SOCKET (DIN)	AKP1064
	CN951	CONNECTOR (6P)	KPE6

FRONT SP ASSEMBLY

OTHERS

Mark	No.	Description	Parts No.
		SPEAKER TERMINAL 8-P	AKE1011

REG (12V) ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC54	REGULATOR IC	NJM78M12FAS
	IC55	REGULATOR IC	NJM79M12FA

CAPACITORS

Mark	No.	Description	Parts No.
	C52, 53		CEAS101M35
	C56, 57		CKCYF103Z50

REG (5.6V) ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC52		M5237L
	IC53	REGULATOR IC	NJM78M56FAS
	Q51		2SA1306

CAPACITORS

Mark	No.	Description	Parts No.
	C76		CEAS010M50
	C55		CEAS101M35
	C51		CEAS470M16
	C54		CKCYF103Z50
	C58		CKCYX104M25

RESISTORS

Mark	No.	Description	Parts No.
	R83		RD1/4PMF221J
	R84		RD1/4PM363J
	R51		RS1LMF100J
		Other Resistors	RD1/8PM□□□J

TRANS TERMINAL ASSEMBLY

TRANS TERMINAL assembly has no service parts.

AMP ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC161, 162	PREDRIVER-IC	UPC1270H
	Q107, 108		2SA1145
	Q103, 104, 201	DUAL TRANSISTOR	2SA1240
	Q115, 116, 204		2SA1306
	Q105, 106		2SA970
	Q101, 102		2SC1845
	Q117, 118, 206		2SC2240
	Q161-164		2SC2458
	Q111, 112, 203		2SC2603
	Q109, 110, 202		2SC2705
	Q113, 114, 205		2SC3298
	D197, 198		D5SB20F
	D101-108, 111-114, 117-122, 161 166, 199, 200, 204-206		HSS104-02
	D109, 110, 115, 116, 201	ZENER DIODE	RD10ESB
	D202, 203	ZENER DIODE	RD4.3ESB

RELAIES

Mark	No.	Description	Parts No.
	RY199		ASR-112
	RY198		ASR1035

COILS

Mark	No.	Description	Parts No.
	L102-104	COIL	ATH1004

CAPACITORS

Mark	No.	Description	Parts No.
	C200	(0.01/AC250V)	ACG1005
	C198	(8200/DC71V)	ACH1224
	C199	(8200/DC71V)	ACH1225
	C113, 114		CCCSL050C500
	C105-108		CCCSL101J50
	C212, 222		CCCSL101K500
	C117-120		CCCSL151K500
	C109, 110		CCCSL220K500
	C204, 205		CCCSL470J50
	C207		CCCSL560K500
	C169, 170		CCCSL680J50
	C123, 124		CEANP010M100
	C175, 176, 211		CEANP2R2M50
	C173, 174		CEAS100M100
	C161, 201, 203		CEAS2R2M50
	C101, 102		CEAS4R7M50
	C111, 112, 208		CEAS470M16
	C209		CEAS470M25
	C167, 168		CEHAQ101M10
	C162		CEHAQ2R2M50
	C121, 122, 210		CFTXA473J50
	C115, 116, 206, 213		CKCYB102K50
	C103, 104		CKCYB122K50
	C125, 126, 165, 166, 202		CKCYB222K50
	C171, 172		CKCYX333M25

Mark	No.	Description	Parts No.
	RESISTORS		
	R177, 178	(0.22/2W)	ACN-131
	R145, 146, 218	(0.33/5W)	ACN1087
	R147, 148, 220, 225		RD1/4PMF100J
	R129−136, 214−217		RD1/4PMF101J
	R153−156, 179−182, 221, 222		RD1/4PMF222J
	R139−142, 233, 234		RD1/4PMF4R7J
	R210		RD1/4PMF470J
	R121, 122		RD1/4PMF680J
	R208		RD1/4PM123J
	R115, 116		RD1/4PM152J
	R207		RD1/4PM431J
	R117, 118		RD1/4PM473J
	R111−114		RFA1/4PS391J
	R137, 138, 143, 144, 227−232		RFA1/4PS4R7J
	R127, 128		RFA1/4PS470J
	R151, 152		RS1LMF100J
	R198, 199		RS1PMF681J
	R197		RS2LMF103J
	Other Resistors		RD1/8PM□□□J
	OTHERS		
	CN29	CONNECTOR (9P)	KPC9
		SCREW (STEEL)	ABA1009

SP SW ASSEMBLY

Mark	No.	Description	Parts No.
	SWITCH		
	S251	PUSH SWITCH	SUJ6LYXS
	RESISTORS		
	R252, 253		RS2LMF331J
	OTHERS		
	JACK	(PHONES)	AKN1002
	CN20	JUMPER CONNECTOR	KPC6

DSP ASSEMBLY

Mark	No.	Description	Parts No.
	SEMICONDUCTORS		
	IC1302		LH5P832N-10T
	IC1202, 1204, 1206, 1209		M5238PF
	IC1201, 1203, 1205, 1207, 1208		NJM4558DXP
	IC1303	REGULATOR IC	NJM78M05FAS
	IC1210	E-SW IC	TC9162N
	IC1301	YSS215	
	D1271−1275, 1301−1305		HSS104-02
	COILS		
	F1201, 1202		ATF1071
	F1301, 1302		ATF1102
	L1301−1305		ATX1008
	CAPACITORS		
	C1203, 1204, 1233, 1234, 1237, 1238, 1252, 1256		CCSQCH101J50
	C1305, 1306		CCSQCH300J50
	C1211, 1212, 1221, 1222		CCSQCH330J50
	C1215, 1216, 1225, 1226		CCSQCH391J50
	C1255		CEANP2R2M50
	C1201, 1202, 1205, 1206, 1219, 1220, 1229, 1230, 1232, 1271, 1272		CEAS100M50
	C1273		CEAS101M10
	C1317, 1318		CEAS101M16
	C1318		CEAS101M16
	C1236, 1239, 1240, 1257		CEAS220M25
	C1312		CEAS221M10
	C1307		CEAS4R7M50
	C1301, 1309		CEAS470M10
	C1319, 1321		CEAS470M16
	C1231, 1251		CEJA100M35
	C1235, 1253		CEJA220M25
	C1254		CFTXA274J50
	C1338		CKDYB561K50
	C1302, 1311, 1314, 1323		CKSQYB102K50
	C1213, 1214, 1223, 1224		CKSQYB272K50
	C1217, 1218, 1227, 1228		CKSQYB682K50
	C1324, 1325		CKSQYF103Z50
	C1274, 1308		CKSQYF104Z50
	C1303, 1310, 1313, 1320, 1322, 1326−1330, 1332−1337		CKSQYF473Z50
	C1315, 1316		CQSA332J50
	RESISTORS		
	R1307		RD1/2PMF100J
	R1321−1331		RS1/10S000J
	R1227, 1228, 1243, 1244, 1261, 1271, 1272, 1302		RS1/10S101J
	R1235−1242, 1204−1306		RS1/10S102J
	R1231−1234, 1251, 1252, 1254, 1256−1260, 1273, 1274, 1303, 1311, 1312		RS1/10S103J
	R1201, 1202, 1245, 1246, 1255		RS1/10S104J
	R1301		RS1/10S105J
	R1253		RS1/10S152J
	R1275		RS1/10S200J
	R1203		RS1/10S332J
	R1204−1206		RS1/10S332J
	R1207, 1208		RS1/10S682J
	R1211−1216, 1221−1226		RS1/10S822J
	Other Resistors		RD1/8PM□□□J
	OTHERS		
	X1301	(11.2MHZ)	ASS1031

POWER SUPPLY ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC51	REGULATOR IC	NJM78M56FAS
	Q64		XDC124ES
	Q61, 65, 66		XDC143ES
	Q54, 56, 57, 59		2SA1048
	Q60		2SA1145
	Q51, 52, 62, 63, 91		2SC2458
	D73		D3SBA20 (A)
	D52−55, 60, 68, 91		HSS104−02
	D61	ZENER DIODE	HZS6A1L
	D58	ZENER DIODE	RD5.1ESB
	D62	ZENER DIODE	RD6.2ESB
	D67	ZENER DIODE	RD8.2ESB
	D63−66, 69−72		S5566

RELAY

Mark	No.	Description	Parts No.
	RY51		ASR1027

COIL & TRANSFORMER

Mark	No.	Description	Parts No.
	L51	LINE FILTER	ATF1006
	T51	POWER TRANSFORMER	ATT1015

CAPACITORS

Mark	No.	Description	Parts No.
⚠	C72, 73	(0.01/AC400V)	ACG1002
	C71	(0.01/AC250V)	ACG1005
	C68, 69	(4700/DC42V)	ACH1203
	C61		CEAS100M50
	C75		CEAS101M35
	C65		CEAS102M25
	C66		CEAS102M35
	C59, 62		CEAS221M16
	C67		CEAS222M35
	C74		CEAS470M10
	C63		CEAS470M16
	C60, 64, 70		CKCYB103K50

RESISTORS

Mark	No.	Description	Parts No.
	R66		RD1/2PM132J
	R200		RD1/2PM432J
	R81		RD1/4PMFL470J
	R75		RD1/4PMF101J
	R80		RD1/4PMF4R7J
	R79		RD1/4PM332J
	R56, 57		RS1LMFR22J
	R55		RS2LMFR22J
	Other Resistors		RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	JACK	(CONTROL)	AKN1006
	AC OUTLET (3P)		AKP1053
	CN17	CONNECTOR (13P)	KPE13

REAR SP CENTER SPASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	Q251, 252		XDC143ES
	D251, 252		HSS104−02

RELAIES

Mark	No.	Description	Parts No.
	RY251, 252		ASR1035

COILS

Mark	No.	Description	Parts No.
	L251, 252	COIL	ATH1004

CAPACITORS

Mark	No.	Description	Parts No.
	C253, 254		CFTXA473J50

RESISTORS

Mark	No.	Description	Parts No.
	R255−258		RD1/4PMF100J
	R259, 260		RS1LMF681J
	Other Resistors		RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	PIN JACK 3P		AKB1120
	SPEAKER TERMINAL 4−P (REAR SP)		AKE−109
	SPEAKER TERMINAL 4−P (CENTER SP)		AKE1026
	CN25	CONNECTOR (4P)	KPE4

AUDIO FUNCTION ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC801	OP−AMP−IC	M5220P
	IC803	OP−AMP IC	NJM4558DXP
	IC802	E−SW IC	TC9164N

CAPACITORS

Mark	No.	Description	Parts No.
	C805, 806		CCSQCH221J50
	C847		CCSQCH471J50
	C807, 808		CCSQSL101J50
	C801, 802		CEAS100M50
	C819, 820		CEAS101M16
	C815, 816, 841, 842		CEAS2R2M50
	C845, 846		CEAS470M25
	C809, 810		CEAS470M16
	C817, 818, 843, 844		CKSQYF103Z50
	C813, 814		CQMA242J50
	C811, 812		CQMA822J50

RESISTORS

Mark	No.	Description	Parts No.
	R847−849		RS1/10S102J
	R839−842		RS1/10S104J
	R829, 830, 837, 838		RS1/10S222J
	R815, 816, 845, 846		RS1/10S224J
	R811, 812		RS1/10S303J
	R803, 804, 819, 820, 823, 824, 827, 828, 835, 836		RS1/10S331J

Mark	No.	Description	Parts No.
	R809, 810		RS1/10S394J
	R813, 814		RS1/10S471J
	R801, 802, 817, 818, 821, 822, 825, 826, 831−834		RS1/10S474J
	R805, 806		RS1/10S563J
	R807, 808		RS1/10S681J

OTHERS

	CN	PIN JACK 6P (TAPE1/TUNER)	AKB1140
	CN	PIN JACK 4P (TAPE2)	AKB1181
	CN	PIN JACK 4P (CD/PHONO)	AKB1201
	CN11	CONNECTOR (7P)	KPE7

A/V FUNCTION ASSEMBLY

SEMICONDUCTORS

	IC881	VIDEO SWITCH	LA7951
	IC882	E−SW IC	NJM2233BS
	IC851	E−SW IC	TC9163N
	Q881, 882		2SC2458
	D851, 852		1SS352

CAPACITORS

	C873		CCSQCH471J50
	C886, 891, 896, 897, 881−885, 892, 893		CEAS101M16
	C888−890		CEAS471M6
	C871, 872, 887, 898−900		CKSQYB103K50

RESISTORS

	R890, 894		RD1/2PM151J
	R904, 905, 907−911		RS1/10S000J
	R901, 902		RS1/10S101J
	R875−877, 885−887, 898		RS1/10S102J
	R888, 892, 896		RS1/10S103J
	R891, 895		RS1/10S122J
	R903, 906		RS1/10S151J
	R863, 864, 871, 872		RS1/10S222J
	R853, 854, 857, 858, 861, 862, 869, 870		RS1/10S331J
	R851, 852, 855, 856, 859, 860, 865−868, 873, 874		RS1/10S474J
	R889, 893, 897		RS1/10S680J
	R881−884		RS1/10S750J

OTHERS

		PIN JACK 3P	AKB1102
		PIN JACK 1P	AKB1145

CONNECTION ASSEMBLY

SEMICONDUCTORS

	IC304	OP−AMP−IC	M5220P

Mark	No.	Description	Parts No.

CAPACITORS

	C325, 326		CCSQCH331J50
	C323, 324		CEAS101M25
	C321, 322		CEAS4R7M50
	C315		CEAS470M16
	C318		CKSQYF473Z50

RESISTORS

	R351, 352		RS1/10S242J
	R347−350		RS1/10S104J
	R345, 346		RS1/10S122J
	R353, 354		RS1/10S102J
	R343, 344		RS1/10S821J

OTHERS

	CN14	CONNECTOR (6P)	KPE6
	CN15	CONNECTOR (9P)	KPE9

PRE OUT ASSEMBLY

CAPACITORS

	C591		CFTXA824J50

RESISTORS

	All Resistors		RD1/8PM□□□J

OTHERS

	CN	PIN JACK 1P	AKB1139
	CN	PIN JACK 2P	AKB1171

VOLUME ASSEMBLY

SEMICONDUCTORS

	IC561, 564	OP−AMP IC	M5220L
	IC501, 521, 523		NJM4558DXP
	IC524	OP−AMP IC	NJM4558LD
	IC503	MECHANISM DRIVER IC	TA8409S
	IC522, 525, 562	E−VR IC	TC9154AP
	IC563	E−TONE CONTROL IC	TC9184P
	Q501		XDC124ES
	D521−526		HSS104−02
	D561−566		HSS104−02
	D506	ZENER DIODE	RD3.3ESB2
	D501, 502	ZENER DIODE	RD5.1ESB2

CAPACITORS

	C567, 568		CCSQCH121J50
	C507, 508, 559, 560		CCSQCH331J50
	C525, 526, 535, 536, 542, 549		CCSQCH470J50
	C511		CEANP101M10
	C565, 566		CEAS010M50
	C569, 570		CEAS100M50
	C512		CEAS101M16

Mark	No.	Description	Parts No.
	C561, 562		CEAS2R2M50
	C503, 504, 509, 510, 521, 522, 527, 528, 531, 532, 540, 543, 547, 550–552, 579, 580		CEAS4R7M50
	C501, 502		CEAS470M10
	C585		CKSQYB102K50
	C505, 506, 523, 524, 533, 534, 541, 544, 545, 548		CKSQYB103K50
	C539, 546		CKSQYB471K50
	C563, 564, 581, 582, 586, 587		CKSQYF103Z50
	C571, 572, 577, 578		CQMA153J50
	C575, 576		CQMA272J50
	C573, 574		CQMA823J50
RESISTORS			
	VR501	(100k A5×2)	ACX1075
	R517		RD1/2PM470J
	R501, 502		RD1/4PM681J
	R599		RS1/10S000J
	R527, 528, 537–539, 543, 547–549, 561, 562, 569, 570, 585–590		RS1/10S102J
	R525, 526, 542		RS1/10S103J
	R567, 568		RS1/10S104J
	R505, 506		RS1/10S112J
	R583, 584		RS1/10S154J
	R559, 560		RS1/10S222J
	R577, 578		RS1/10S223J
	R529, 530, 544		RS1/10S224J
	R523, 524, 541		RS1/10S332J
	R571, 572		RS1/10S362J
	R531, 532, 545, 579, 580		RS1/10S392J
	R503, 504, 521, 522, 540, 563, 564		RS1/10S473J
	R565, 566		RS1/10S474J
	R508		RS1/10S561J
	R518, 519		RS1/10S562J
	R575, 576		RS1/10S564J
	R533, 534, 546		RS1/10S623J
	R581, 582		RS1/10S821J
	R573, 574		RS1/10S823J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	CN16	CONNECTOR (9P)	KPE9
	CN18	CONNECTOR (9P)	KPE9

5. ADJUSTMENTS

DOLBY LEVEL ADJUSTMENT (FOR VSA-701S ONLY)

Set the switches as follows :

- SURROUND MODE : STUDIO
- DELAY TIME : 20m Sec.
- INPUT SELECTOR : CD

1. Input a signal of 1kHz at 300mV to the Lch side of the CD terminal.
2. Adjust the input level so that Pin ⑮ of the CN1901 connector becomes 300mVrms (=0dB).
3. Adjust VR1901 so that the output level of Pin ① (DELAY OUT) of the CN1901 connector becomes −0.5dB±1dB.

5. REGLAGES

REGLAGE DU NIVEAU DOLBY (POUR VSA-701S SEULEMENT)

Régler les commandes de la manière suivante :

- MODE AMBIOPHONIQUE : STUDIO
- TEMPS DE RETARD : 20m Sec.
- SELECTEUR D'ENTREE : CD

1. Appliquer un signal de 1kHz à 300mV au côté Lch de la borne CD.
2. Régler le niveau d'entrée de manière qu'il soit égal à 300mVeff à la broche ⑮ du connecteur CN1901 (=0dB).
3. Régler VR1901 de manièr que le niveau de sortie à la broche ① (SORTIE RETARD) du connecteur CN1901 soit égal à −0,5dB±1dB.

5. AJUSTES

AJUSTE DE NIVEL DOLBY (SOLO PARA VSA-701S)

Ajuste los interruptores de la manera siguiente :

- MODE DE SONIDO ENVOLVENTE : ESTUDIO
- TIEMPO DE RETARDO : 20 mseg.
- SELECTOR DE ENTRADA : CD

1. Ingrese una señal de 1 kHz en 300mV al lado del canal L (izquierdo) del terminal CD.
2. Ajuste el nivel de entrada de modo que el contacto ⑮ del conector CN1901 se convierta en 300mV de valor eficaz (=0dB).
3. Ajuste la VR1901 de mode que el nivel de salida del contacto ① (SALIDA DE RETARDO) del conector CN1901 se convierta en −0,5dB±1dB.

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DOL. PRO. MOD. assembly
Ensemble DOL. PRO. MOD.
Conjunto DOL. PRO. MOD.

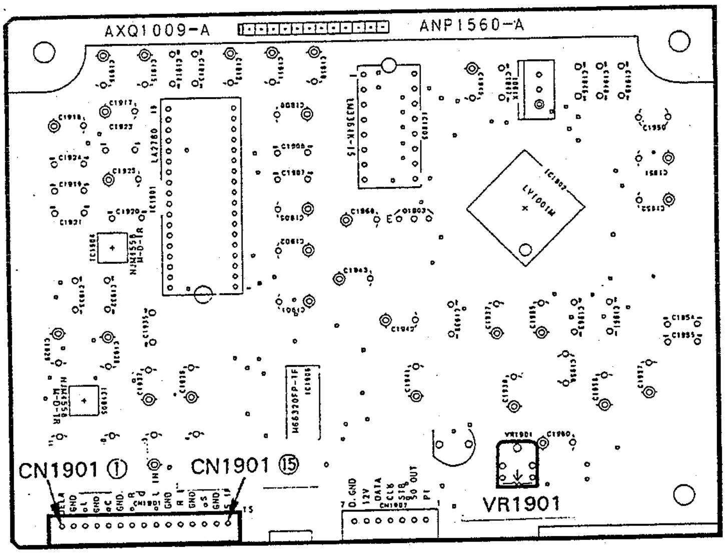


Fig. 5-1 Adjustment Points
Fig. 5-1 Emplacements de réglage
Fig. 5-1 Puntos de ajuste

6. IC INFORMATION

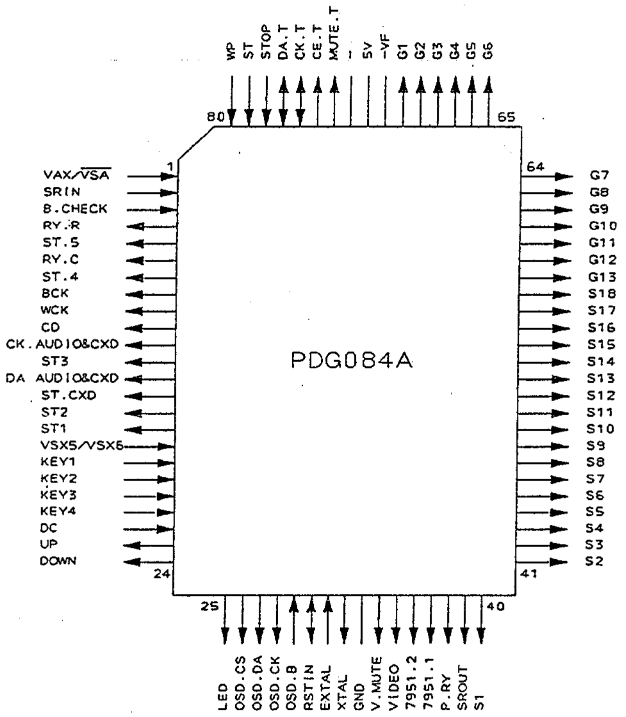
- *The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.*

■ PDG084A (IC601)

● System Control Micro-computer

- Pin Assignment

(Top View)


WP
ST
STOP
DA.T
CK.T
CE.T
MUTE.T
–
5V
–VF
G1
G2
G3
G4
G5
G6
80
65
1
64
VAX/VSA
SRIN
B.CHECK
RY.R
ST.5
RY.C
ST.4
BCK
WCK
CD
CK.AUDIO&CXD
ST3
DA AUDIO&CXD
ST.CXD
ST2
ST1
VSX5/VSX6
KEY1
KEY2
KEY3
KEY4
DC
UP
DOWN
PDG084A
G7
G8
G9
G10
G11
G12
G13
S18
S17
S16
S15
S14
S13
S12
S11
S10
S9
S8
S7
S6
S5
S4
S3
S2
24
41
25
40
LED
OSD.CS
OSD.DA
OSD.CK
OSD.B
RSTIN
EXTAL
XTAL
GND
V.MUTE
VIDEO
7951.2
7951.1
P.RY
SROUT
S1

- Pin Function

No.	Terminal Name	I/O	Description
1	VSX/VSA	I	Port for switching between VSX and VSA.
2	SR IN	I	Remote control signal input from the SR IN terminal or the light receiving unit.
3	B-Check	I	Remote control signal input from the MR IN terminal. The system detects remote control operation SUB ROOM when the signal is input.
4	RY-Rear	O	Rear relay ON/OFF
5	ST. 5	O	Strobe to operate the rear electronic VR.
6	RY-Center	O	Center relay ON/OFF
7	ST. 4	O	Strobe to operate the front balance and tone.
8	BCK	O	DSD IC bit clock
9	WCK	O	DSP IC word clock
10	CD	O	DSP IC data
11	CK. AUDIO & CXD	O	Clock for the audio system and the port expander.
12	ST. 3	O	Strobe to operate the surround and center electronic VRs.
13	DA. AUDIO & CXD	O	Data for the audio system and the port expander.
14	ST. CXD	O	Strobe for the port expander.
15	ST. 2	O	Strobe for subfunction, multiroom VR and analog ground SW.
16	ST. 1	O	Strobe for main function and DSP surround SW.
17	VSX5/VSX6	I	Port for switching between VSX-5 and VSX-6.
18	KEY IN 1	I	KEY MATRIX return input
19	KEY IN 2	I	
20	KEY IN 3	I	
21	KEY IN 4	I	
22	DC	I	Detection of the VR position (VR MAX : 5V, VR MIN : 0V) of AUDIO SOURCE CONTROL and conversion of A/D.
23	UP	O	VR : UP when using remote control.
24	DOWN	O	VR : DOWN when using remote control.
25	LED	O	VR knob LED ON/OFF during remote control operation.
26	OSD. CS	O	NC
27	OSD. DA	O	
28	OSD. CK	O	
29	OSD. BLUE	I	
30	RST IN	I/O	Reset
31	EXTAL	I	Oscillator IN/OUT
32	XTAL	O	

No.	Terminal Name	I/O	Description
33	GND	—	GND
34	V. MUTE	O	To the MUTE terminal of LA7951 used for MUTE and FUNCTION of the video signal.
35	VIDEO	O	Switches between VIDEO and TV when front video input is added.
36	LA7951. 2	O	2-bit control terminal of LA7951 (video function).
37	LA7951. 1	O	
38	P. RY	O	Power relay and turning the standby LED to ON/OFF.
39	SR OUT	O	Sends SR signal of multiple devices during AUDIO SOURCE CONTROL.
40	SEG1/KEY1	O	Display segment and KEY MATRIX output.
41	SEG2/KEY2	O	
42	SEG3/KEY3	O	
43	SEG4/KEY4	O	
44	SEG5/KEY5	O	
45	SEG6/KEY6	O	
46	SEG7/KEY7	O	
47	SEG8/KEY8	O	
48	SEG9/KEY9	O	
49	SEG10/KEY10	O	
50	SEG11/KEY11	O	
51	SEG12/KEY12	O	
52	SEG13/KEY13	O	
53	SEG14/KEY14	O	
54	SEG15/KEY15	O	
55	SEG 16	O	Display segment
56	SEG 17	O	
57	SEG 18	O	

No.	Terminal Name	I/O	Description
58	GRID 13	O	NC
59	GRID 12	O	
60	GRID 11	O	
61	GRID 10	O	Display grid
62	GRID 9	O	
63	GRID 8	O	
64	GRID 7	O	
65	GRID 6	O	
66	GRID 5	O	
67	GRID 4	O	
68	GRID 3	O	
69	GRID 2	O	
70	GRID 1	O	
71	−VF	—	FL negative voltage −VFDP
72	+5V(VDD)	—	Positive power supply
73	—	—	NC
74	MUTE. T	O	
75	CE. T	O	
76	CK. T	I/O	
77	DA. T	I/O	
78	STOP (TUNED)	I	Control signal sent from IC when performing tuning. The TUNED FL indicator lights up when the system detects the signal.
79	STEREO	I	Signal sent from IC when the system is in the STEREO mode. The STEREO indicator lights up when the system detects the signal.
80	AC Wake Up	I	AC short break detection report

7. REMOTE CONTROL UNIT [CU – VSA019 (AXD1271)] [CU – VSA020 (AXD1272)]

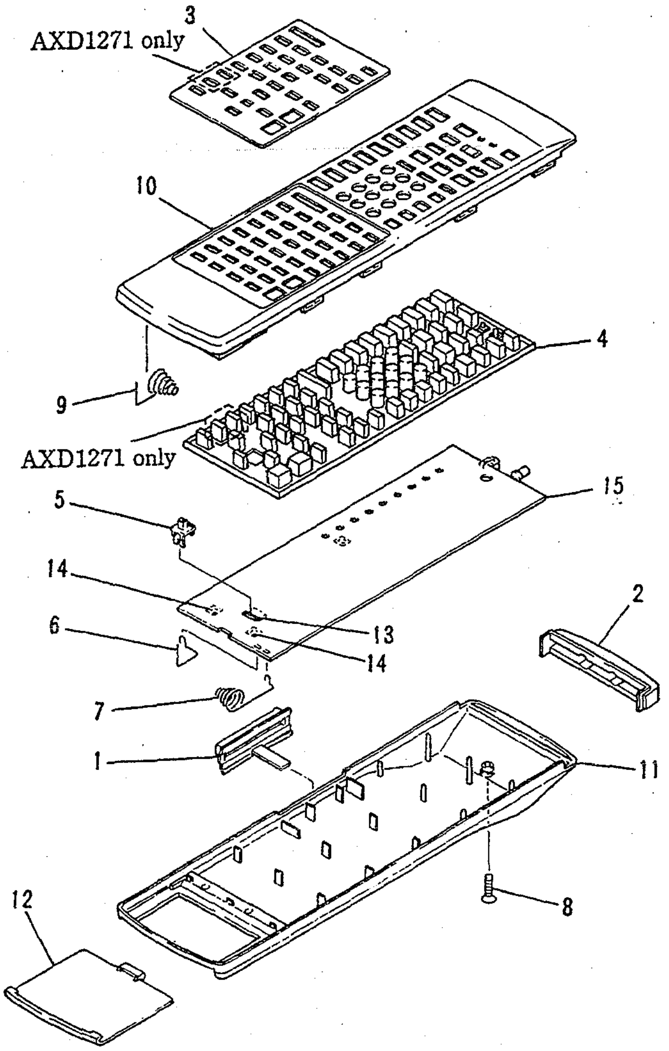
7.1 EXPLODED VIEW AND PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts list of Exterior

Mark	No.	Description	Parts No.
	1	MODE CHECK KEY	AZA1335
	2	FILTER	AZA1336
	3	PLATE (AXD1271)	AZA1370
	3	PLATE (AXD1272)	AZA1371
	4	RUBBER SHEET (AXD1271)	AZA1365
	4	RUBBER SHEET (AXD1272)	AZA1366
	5	KNOB	AZA1349
	6	TERMINAL (+)	AZB1327
	7	TERMINAL (–)	AZB1328
	8	SCREW	AZB1329
	9	TERMINAL (C)	AZB1330
	10	CASE (A)	AZN2089
	11	CASE (B)	AZN2090
	12	BATTERY COVER	AZN2091
	13	SLIDE SW	AZS1117
	14	TACT SW	AZS1118
NSP	15	P. C. BOARD	AZW1130



7.2 ELECTRICAL PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56×10^1 → 561 .... RD1/8PM $\boxed{5}\,\boxed{6}\,\boxed{1}$ *J*
47kΩ → 47×10^3 → 473 .... RD1/4PS $\boxed{4}\,\boxed{7}\,\boxed{3}$ *J*
0.5Ω → 0R5 .... RN2H $\boxed{0}\,\boxed{R}\,\boxed{5}$ *K*
1Ω → 010 .... RS1P $\boxed{0}\,\boxed{1}\,\boxed{0}$ *K*

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562×10^1 → 5621 .... RN1/4PC $\boxed{5}\,\boxed{6}\,\boxed{2}\,\boxed{1}$ *F*

Parts list of AXD1271 and AXD1272

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC1	μ−COM	ACM001−029
	IC2	IC	AZC1564
	IC3	LOGIC IC	MC74HC138F
	Q1, 2	CHIP TRANSISTOR	2SC3052E
	Q3, 4	TRANSISTOR	2SD1622
	D1	DIODE	DWA010−TE
	D10−17	LED	AZC1573
	D2−6	DIODE	DWA010−TE
	D7	LED	SLR−938C
	D8	DIODE	SPS−503C−3
	D9	LED	AZC1573
CAPACITORS			
	C1, 2	CERAMIC CAPACITOR	CCDSL330J50
	C3	CERAMIC CAPACITOR	CCDSL221J50
	C4	CERAMIC CAPACITOR	CKDYX104M25
	C5	ELECT. CAPACITOR	CEAS470M16
	C6	CERAMIC CAPACITOR	CKDYB103K50
	C7	ELECT. CAPACITOR	CEAS221M10
	C8	ELECT. CAPACITOR	CEAS4R7M50
RESISTORS			
	R7, 8	CARBON FILM RESISTOR	RD1/4PMFL1R5J
		Other resistors	RD1/8PM□□□J
OTHERS			
	X1	RESONATOR	AZC1570

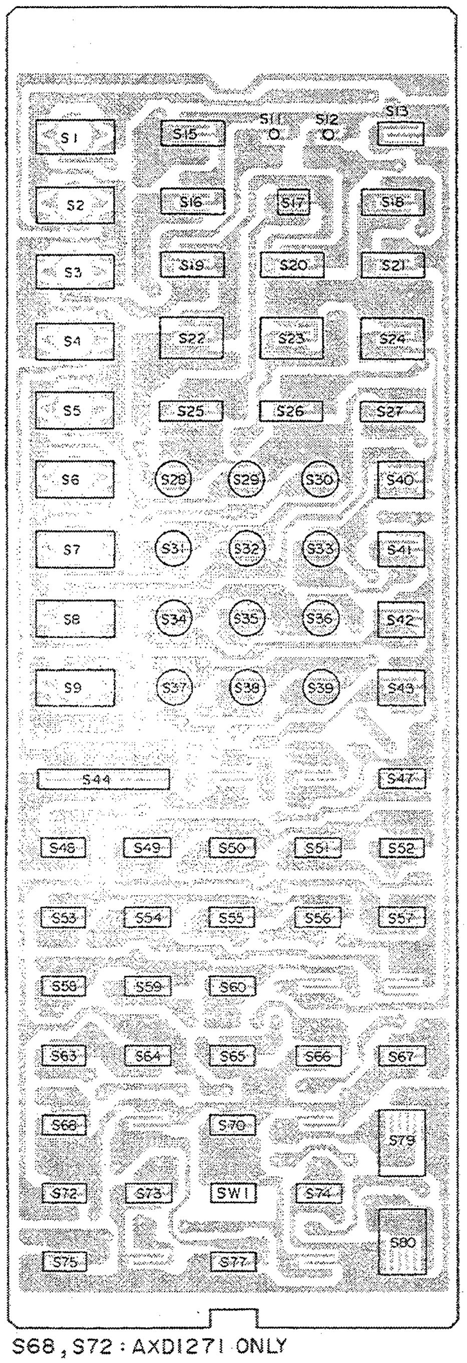
7.3 P. C. BOARD PATTERN (FOR AXD1271 AND AXD1272)

—□— : Indicates a chip resistor.

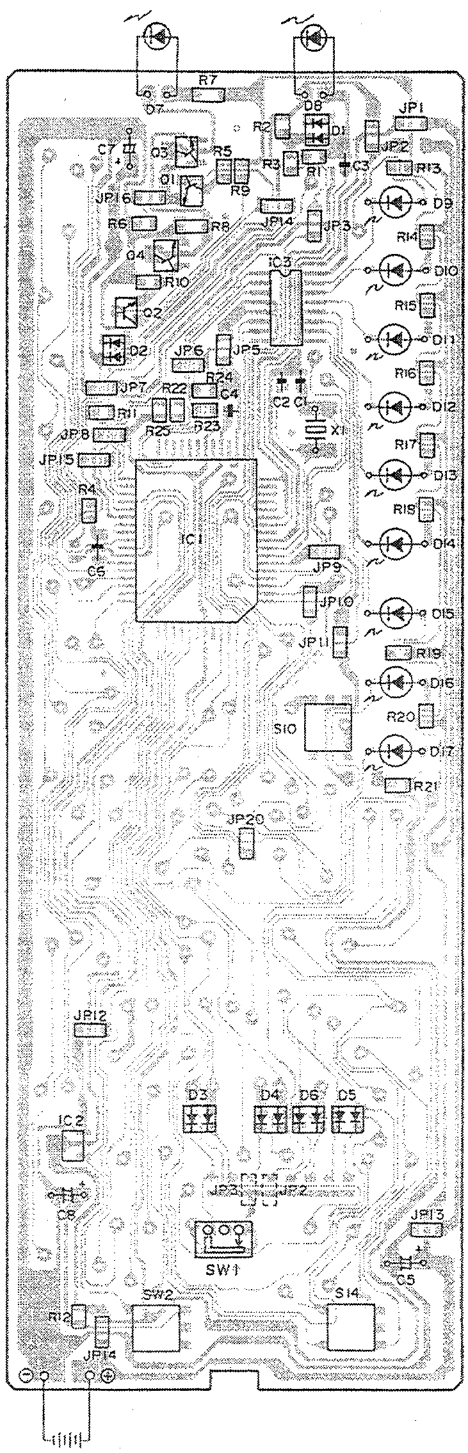
—▮— : Indicates a chip capacitor.

: Indicates a chip transistor.

: Indicates a chip diode.


S1
S2
S3
S4
S5
S6
S7
S8
S9
S11
S12
S13
S15
S16
S17
S18
S19
S20
S21
S22
S23
S24
S25
S26
S27
S28
S29
S30
S31
S32
S33
S34
S35
S36
S37
S38
S39
S40
S41
S42
S43
S44
S47
S48
S49
S50
S51
S52
S53
S54
S55
S56
S57
S58
S59
S60
S63
S64
S65
S66
S67
S68
S70
S72
S73
SW1
S74
S75
S77
S79
S80

S68, S72 : AXD1271 ONLY


D7
R7
D8
R2
D1
JP1
C7
Q3
R5
R3
R1
C3
JP2
R13
Q1
R9
JP16
D9
R6
R8
JP14
JP3
R14
Q4
IC3
D10
R10
Q2
R15
D11
D2
JP6
JP5
R16
R24
C2
C1
JP7
R22
C4
D12
R11
R25
R23
X1
JP8
R17
JP15
D13
R4
R18
IC1
D14
C6
JP9
JP10
D15
JP11
R19
D16
S10
R20
D17
R21
JP20
JP12
D3
D4
D6
D5
IC2
JP3
JP2
C8
JP13
SW1
C5
SW2
S14
R12
JP14
⊖
⊕

7.4 SCHEMATIC DIAGRAM (FOR AXD1271 AND AXD1272)

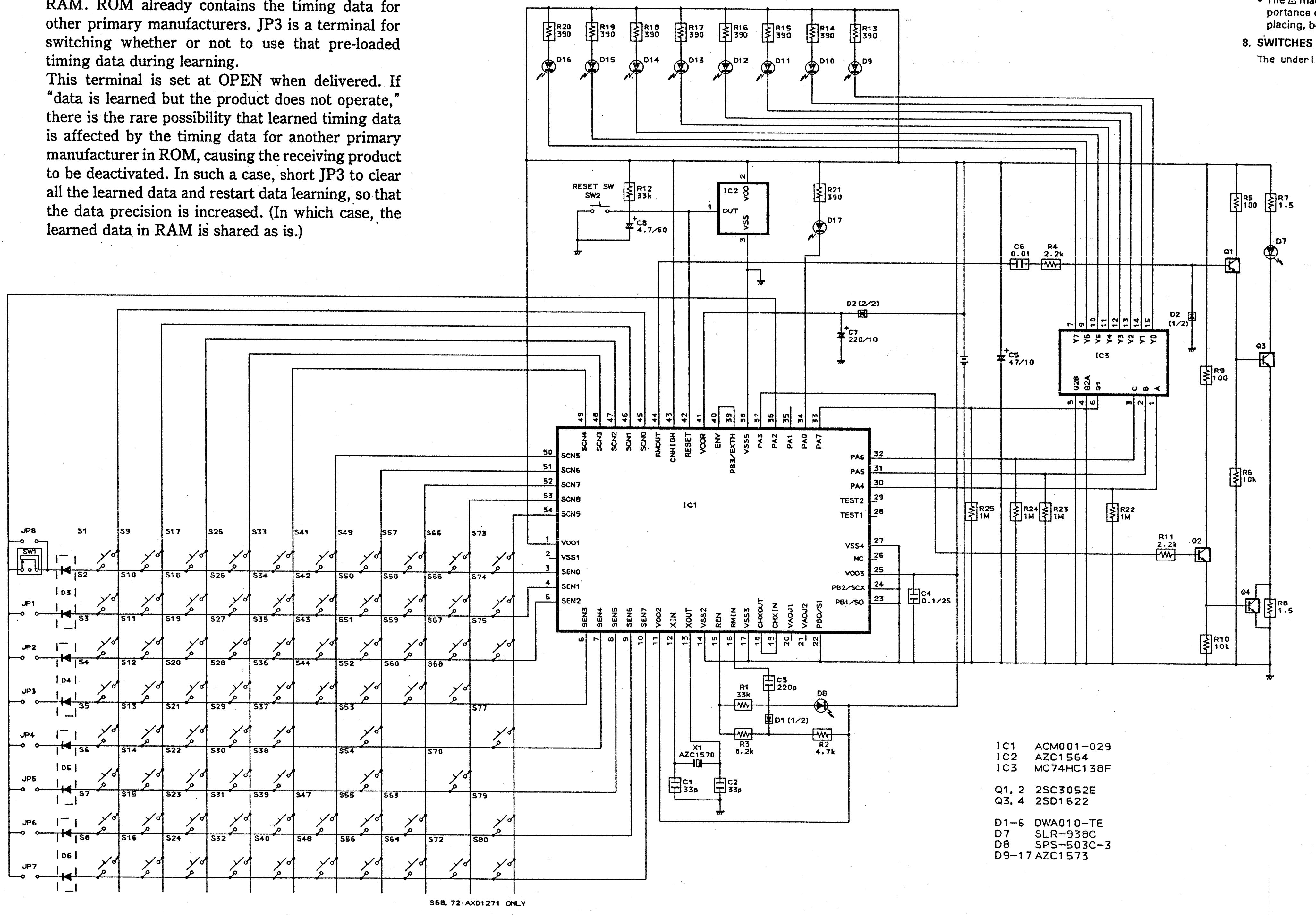
NOTE)

JP2 : The terminal for switching Fc (carrier frequency of the fixed code). This terminal is set at OPEN (Fc = 40kHz) when delivered. If a product of another manufacturer accidentally receives the PIONEER code, short the terminal so that Fc will be 36.7kHz. (In which case, the learned code and preset code do not change.)

JP3 : This remote control saves the learned data, timing data in ROM and other data (such as code data) in RAM. ROM already contains the timing data for other primary manufacturers. JP3 is a terminal for switching whether or not to use that pre-loaded timing data during learning.
This terminal is set at OPEN when delivered. If "data is learned but the product does not operate," there is the rare possibility that learned timing data is affected by the timing data for another primary manufacturer in ROM, causing the receiving product to be deactivated. In such a case, short JP3 to clear all the learned data and restart data learning, so that the data precision is increased. (In which case, the learned data in RAM is shared as is.)

NOTE:

▭ : Indicates a chipresistor.
▮ : Indicates a chipcapacitor.
⊠ : Indicates a chiptransistor.
⊡ : Indicates a chipdiode.


IC1
IC2
IC3
RESET SW
SW2
SW1
JP1
JP2
JP3
JP4
JP5
JP6
JP7
JP8
R1 33k
R2 4.7k
R3 8.2k
R4 2.2k
R5 100
R6 10k
R7 1.5
R8 1.5
R9 100
R10 10k
R11 2.2k
R12 33k
R13 390
R14 390
R15 390
R16 390
R17 390
R18 390
R19 390
R20 390
R21 390
R22 1M
R23 1M
R24 1M
R25 1M
C1 33p
C2 33p
C3 220p
C4 0.1/25
C5 47/10
C6 0.01
C7 220/10
C8 4.7/50
X1 AZC1570
D1 (1/2)
D2 (1/2)
D2 (2/2)
D7
D8
D9
D10
D11
D12
D13
D14
D15
D16
D17
Q1
Q2
Q3
Q4
SCN4
SCN3
SCN2
SCN1
SCN0
RMOUT
CNHIGH
RESET
VDDR
ENV
PB3/EXTH
VSS5
PA3
PA2
PA1
PA0
PA7
SCN5
SCN6
SCN7
SCN8
SCN9
VDD1
VSS1
SEN0
SEN1
SEN2
PA6
PA5
PA4
TEST2
TEST1
VSS4
NC
VDD3
PB2/SCX
PB1/SO
SEN3
SEN4
SEN5
SEN6
SEN7
VDD2
XIN
XOUT
VSS2
REN
RMIN
VSS3
CHKOUT
CHKIN
VADJ1
VADJ2
PB0/SI
Y7
Y6
Y5
Y4
Y3
Y2
Y1
Y0
G2B
G2A
G1
C
B
A
OUT
VDD
VSS
S68, 72: AXD1271 ONLY

IC1 ACM001-029
IC2 AZC1564
IC3 MC74HC138F

Q1, 2 2SC3052E
Q3, 4 2SD1622

D1-6 DWA010-TE
D7 SLR-938C
D8 SPS-503C-3
D9-17 AZC1573

Note: (Type 2)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭ : DC voltage (V) at no input signal unless otherwise noted.
   ⇦ mA or ← mA : DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ : Adjusting point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES (Underline indicates switch position):**

The underline indicates the switch position
SW1 : CENT. · BAL./REAR · REAR BAL.
SW2 : RESET
S1 : VCR1
S2 : VCR2
S3 : LD
S4 : TV
S5 : CD
S6 : TUNER
S7 : DECK I
S8 : DECK II
S9 : DAT
S10 : MODE CHECK
S11 : LEARN
S12 : EDIT
S13 : MULTI COMMAND
S14 : M.CLEAR
S15 : POWER
S16 : ⏮
S17 : REC
S18 : ⏭
S19 : ⏪
S20 : ◀ (SEARCH)
S21 : ⏩
S22 : ⏸
S23 : ■
S24 : ▶
S25 : TV/VCR (+10)
S26 : SELECT (DISP)
S27 : TV FUNC (BAND)
S28 : 1
S29 : 2
S30 : 3
S31 : 4
S32 : 5
S33 : 6
S34 : 7
S35 : 8
S36 : 9
S37 : 10/0
S38 : 11/PGM
S39 : 12/CLEAR
S40 : CUSTOM (TV VOL+)
S41 : SCAN (TV VOL−)
S42 : FREQ CH (Λ)
S43 : FREQ CH (V)
S44 : AMP POWER
S47 : SLEEP
S48 : VCR1
S49 : VCR2
S50 : LD
S51 : TV
S52 : VIDEO
S53 : TAPE1/DAT
S54 : TAPE2/MONITOR
S55 : CD
S56 : TUNER
S57 : PHONO
S58 : SIMULATED STEREO
S59 : ACOUSTIC
S60 : VIDEO SIGNAL SELECT
S63 : SURR MODE
S64 : 3CH LOGIC
S65 : CENTER MODE
S66 : TEST TONE
S67 : MUTING
S68 : EFECT + (AXD1271 ONLY)
S70 : CENTER +
S72 : EFECT − (AXD1271 ONLY)
S73 : REAR L
S74 : REAR R
S75 : DELAY TIME
S77 : CENTER −
S79 : MASTER VOLUME +
S80 : MASTER VOLUME −

8. FOR VSA – 701S/SD TYPE

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

8.1 CONTRAST OF MISCELLANEOUS PARTS

VSA – 701S/SD and VSA – D801S/SD have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		VSA – D801S/SD	VSA – D701S/SD	
◉	DSP assembly	AWZ4294	....	
◉	AMP assembly	AWZ4286	AWZ4718	
◉	POWER SUPPLY assembly	AWZ4381	AWZ4388	
◉	REAR SP CENTER SP assembly	AWZ4382	AWZ4389	
◉	CONNECTION assembly	AWZ4385	AWZ4390	
◉	VOLUME assembly	AWZ4387	AWZ4391	
◉	FL. U-COM assembly	AWK1552	AWK1560	
	DOL. PRO. MOD assembly	....	AXQ1009	
⚠	Q7 Transistor	2SC4688	....	
⚠	Q9 Transistor	2SA1803	....	
⚠	T1 Power transformer	ATS1427	ATS1425	
⚠	C15–C17 Mylar film capacitor	CQMA104K250	....	
⚠	C10–C14 Mylar film capacitor	....	CQMA104K250	
	Panel base	AMB2003	AMB2004	
	Front panel	ANB1518	ANB1519	
NSP	PCB Spacer	....	AEC1072	
NSP	Barrier (PVC)	AEC1412	....	
	Bonnet	ANE1373	ANE1374	
NSP	Heat sink	ANH1379	ANH1398	
	Packing case	AHD2287	AHD2288	
	Operating instructions (English)	ARB1382	ARB1381	
	Remote control unit (CU – VSA019)	AXD1271	....	
	Remote control unit (CU – VSA020)	....	AXD1272	

POWER SUPPLY ASSEMBLY

POWER SUPPLY assembly (AWZ4388) and POWER SUPPLY assembly (AWZ4381) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4381	AWZ4388	
	C68, C69 (4700/DC42V)	ACH1203	....	
	C68, C69 (4700/DC35V)	....	ACH1021	

AMP ASSEMBLY

AMP assembly (AWZ4254) and AMP assembly (AWZ4286) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4286	AWZ4718	
	IC161	UPC1270H	....	
	Q161, Q163	2SC2458	....	
	D161, D163, D165	HSS104 – 02	....	
	C161	CEAS2R2M50	....	
	C165	CKCYB222K50	....	
	C167	CEHAQ101M10	....	
	C169	CCCSL680J50	....	
	C171	CKCYX333M25	....	
	C173	CEAS100M100	....	
	C175	CEANP2R2M50	....	
	R161, R173	RD1/8PM102J	....	
	R163, R169	RD1/8PM563J	....	
	R165	RD1/8PM123J	....	
	R167	RD1/8PM272J	....	
	R171	RD1/8PM684J	....	
	R175	RD1/8PM122J	....	
	R177 (0.22/2W)	ACN – 131	....	
	R179, R181	RD1/4PMF222J	....	
	R183, R185	RD1/8PM153J	....	
	R187	RD1/8PM183J	....	
	R227, R229	RFA1/4PS4R7J	....	

REAR SP CENTER SP ASSEMBLY

REAR SP CENTER SP assembly (AWZ4389) and REAR SP CENTER SP assembly (AWZ4382) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4382	AWZ4389	
	Q252	XDC143ES	....	
	D252	HSS104 – 02	....	
	RY252	ASR1035	....	
	L252	ATH1004	....	
	C254	CFTXA473J50	....	
	R256, R258	RD1/4PMF100J	....	
	R259	RS1LMF681J	....	
	R267	RD1/8PM333J	....	
	R270	RD1/8PM222J	....	

CONNECTION ASSEMBLY

CONNECTION assembly (AWZ4390) and CONNECTION assembly (AWZ4385) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4385	AWZ4390	
	IC301, IC302	....	NJM4558DXP	
	IC303	....	TC9162N	
	IC304	M5220P	....	
	Q301	....	2SC2458	
	Q302	....	XDA124ES	
	Q303	....	XDC124ES	
	Q304	....	2SK246	
	C301–C304, C307–C309	....	CEAS4R7M50	
	C305, C306	....	CCSQCH680J50	
	C310, C313	....	CKSQYB103K50	
	C311, C312	....	CEAS470M16	
	C314	....	CCSQCH471J50	
	C317	....	CKSQYF103Z50	
	C318	CKSQYF473Z50	....	
	C319	....	CEAS101M16	
	C320	....	CFTXA473J50	
	C321, C322	CEAS4R7M50	....	
	C323, C324	CEAS101M25	....	
	C325, C326	CCSQCH331J50	....	
	R301, R302, R311, R312	....	RS1/10S473J	
	R303	....	RS1/10S104J	
	R304–R306	....	RS1/10S223J	
	R307	....	RS1/10S122J	
	R308	....	RS1/10S152J	
	R309	....	RS1/10S273J	
	R310	....	RS1/10S182J	
	R313, R314, 317	....	RS1/10S334J	
	R315, R318	....	RS1/10S114J	
	R316	....	RS1/10S113J	
	R319	....	RS1/10S822J	
	R321, R322	....	RS1/10S333J	
	R323, R324, R329	....	RS1/10S102J	
	R325, R326	....	RS1/10S224J	
	R327, R328	....	RS1/8PM102J	
	R342	....	RS1/8PM4R7J	
	R343, R344	RS1/10S821J	....	
	R345, R346	RS1/10S122J	....	
	R347–R350	RS1/10S104J	....	
	R351, R352	RS1/10S242J	....	
	R353, R354	RS1/10S102J	....	
	R358	....	RS1/8PM104J	
	R359	....	RS1/8PM475J	

VOLUME ASSEMBLY

VOLUME assembly (AWZ4391) and VOLUME assembly (AWZ4387) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4387	AWZ4391	
	IC524	NJM4558LD	....	
	IC525	TC9154AP	....	
	D525, D526	HSS104－02	....	
	C553	....	CEAS4R7M50	
	C540, C543, C547, C552	CEAS4R7M50	....	
	C541, C544, C545, C548	CKSQYB103K50	....	
	C542, C549	CCSQCH470J50	....	
	C546	CKSQYB471K50	....	
	VR501	ACX1075	ACX1074	
	R505, R506	RS1/10S112J	RS1/10S222J	
	R518, R519	RS1/10S562J	....	
	R531, R532	RS1/10S392J	RS1/10S472J	
	R540	RS1/10S473J	....	
	R541	RS1/10S332J	....	
	R542	RS1/10S103J	....	
	R543, R547－R549	RS1/10S102J	....	
	R544	RS1/10S224J	....	
	R545	RS1/10S392J	....	
	R546	RS1/10S623J	....	

FL U-COM ASSEMBLY

FL U-COM assembly (AWK1560) and FL U-COM assembly (AWK1552) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWK1552	AWK1560	
	IC601	PDG084A	PDG083A	
	D629－D633	....	HSS104－02	
	S644, S648, S652, S656, S660	ASG1034	....	
	R631	RD1/8PM222J	....	

8.2 PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56 × 10^1 → 561 .... RD1/8PM $\boxed{5}\ \boxed{6}\ \boxed{1}$ *J*
47kΩ → 47 × 10^3 → 473 .... RD1/4PS $\boxed{4}\ \boxed{7}\ \boxed{3}$ *J*
0.5Ω → 0R5 .... RN2H $\boxed{0}\ \boxed{R}\ \boxed{5}$ *K*
1Ω → 010 .... RS1P $\boxed{0}\ \boxed{1}\ \boxed{0}$ *K*

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562 × 10^1 → 5621 .... RN1/4PC $\boxed{5}\ \boxed{6}\ \boxed{2}\ \boxed{1}$ *F*

DOL. PRO. MOD. ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1901	DOLBY PROLOGIC IC	LA2780
	IC1902	DOLBY SURRUND IC	LV1001M-A
	IC1903	DRAM IC	LM3364K-15
	IC1904, 1905	OP-AMP IC	NJM4558M-D
	IC1906	PORT-EXPANDER IC	M66320FP
	Q1901	TRANSISTOR	DTA143EK
	Q1902	DIGITAL TRANSISTOR	DTC143EK
	Q1903	TRANSISTOR	2SD438
	D1901−1905	DIODE	1SS226

CAPACITORS

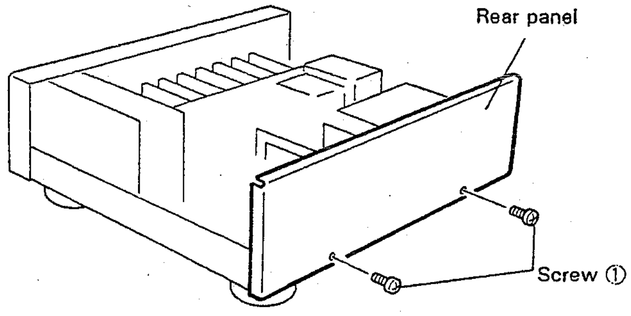
Mark	No.	Description	Parts No.
	C1901	ELECT. CAPACITOR	CEAS470M25
	C1902	ELECT. CAPACITOR	CEAS101M10
	C1903, 1904	ELECT. CAPACITOR	CEAS100M50
	C1905	ELECT. CAPACITOR	CEYAR33M50
	C1906	CHIP CAPACITOR	CCSQCH681J50
	C1907, 1908	AUDIO FILM CAPACITOR	CFTXA104J50
	C1909, 1910	ELECT. CAPACITOR	CEYA2R2M50
	C1911	ELECT. CAPACITOR	CEASR15M50
	C1912	ELECT. CAPACITOR	CEYA3R3M50
	C1913, 1914	AUDIO FILM CAPACITOR	CFTXA154J50
	C1915	ELECT. CAPACITOR	CEYA3R3M50
	C1916	ELECT. CAPACITOR	CEASR15M50
	C1917, 1918	ELECT. CAPACITOR	CEANL2R2M50
	C1919	AUDIO FILM CAPACITOR	CFTXA473J50
	C1920	AUDIO FILM CAPACITOR	CFTXA104J50
	C1921	AUDIO FILM CAPADITOR	CFTXA334J50
	C1922	CHIP CAPACITOR	CCSQCH681J50
	C1923, 1924	AUDIO FILM CAPACITOR	CFTXA104J50
	C1925	ELECT. CAPACITOR	CEYAR33M50
	C1926, 1927	ELECT. CAPACITOR	CEAS100M50
	C1928, 1929	ELECT. CAPACITOR	CEAS220M16
	C1930, 1931	ELECT. CAPACITOR	CEAS2R2M50
	C1932	AUDIO FILM CAPACITOR	CFTXA153J50
	C1933	AUDIO FILM CAPACITOR	CFTXA103J50
	C1934	CHIP CAPACITOR	CCSQCH681J50
	C1935	AUDIO FILM CAPACITOR	CFTXA104J50
	C1936	ELECT. CAPACITOR	CEAS471M16
	C1937	ELECT. CAPACITOR	CEAS4R7M50
	C1938	CHIP CAPACITOR	CCSCH102J50
	C1939	AUDIO FILM CAPACITOR	CFTXA223J50
	C1940	CHIP CAPACITOR	CCSQCH151J50
	C1941−1943	ELECT. CAPACITOR	CEAS221M16
	C1944	CERAMIC CAPACITOR	CKSQYF104Z50
	C1945	ELECT. CAPACITOR	CEASR22M50
	C1946	AUDIO FILM CAPACITOR	CFTXA683J50
	C1947	MYLAR FILM CAPACITOR	CQMA392J50
	C1948	MYLAR FILM CAPACITOR	CQMA472J50
	C1949	AUDIO FILM CAPACITOR	CFTXA333J50
	C1950	ELECT. CAPACITOR	CEANP100M35
	C1951	ELECT. CAPACITOR	CEAS010M50
	C1952	ELECT. CAPACITOR	CEAS100M50
	C1953	CHIP CERAMIC C.	CCSQCH471J50
	C1954	MYLAR FILM CAPACITOR	CQMA562J50
	C1955	MYLAR FILM CAPACITOR	CQMA682J50
	C1956	ELECT. CAPACITOR	CEANPR33M50
	C1957, 1958	ELECT. CAPACITOR	CEAS100M50
	C1959	CHIP CAPACITOR	CCSQCH681J50
	C1960	ELECT. CAPACITOR	CEAS100M50
	C1961	AUDIO FILM CAPACITOR	CFTXA154J50

Mark	No.	Description	Parts No.
	C1962	CHIP CAPACITOR	CCSQCH151J50
	C1963	AUDIO FILM CAPACITOR	CFTXA223J50
	C1964	CHIP CAPACITOR	CCSCH102J50
	C1965	ELECT. CAPACITOR	CEAS4R7M50
	C1966	CERAMIC CAPACITOR	CKSQYF104Z50
	C1967	CERAMIC CAPACITOR	CKSQYB103K50
	C1968	ELECT. CAPACITOR	CEAS221M10
	C1970	CERAMIC CAPACITOR	CKSQYB562K50
	C1971−1973	CHIP CAPACITOR	CCSQCH101J50
RESISTORS			
	VR1901	VR (4.7k)	ACP1045
		Other resistors	RS1/10S□□□J
OTHERS			
	X1901	CRYSTAL RESONATOR (8.00MHz)	ASS1015

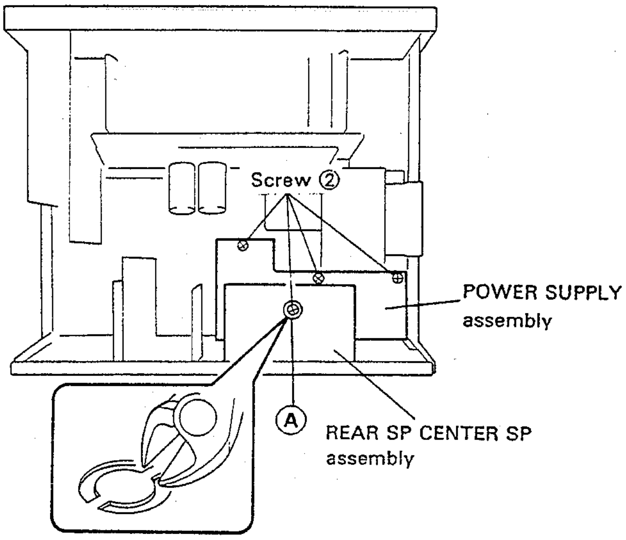
9. DISASSEMBLY

9.1 POWER SUPPLY ASSEMBLY

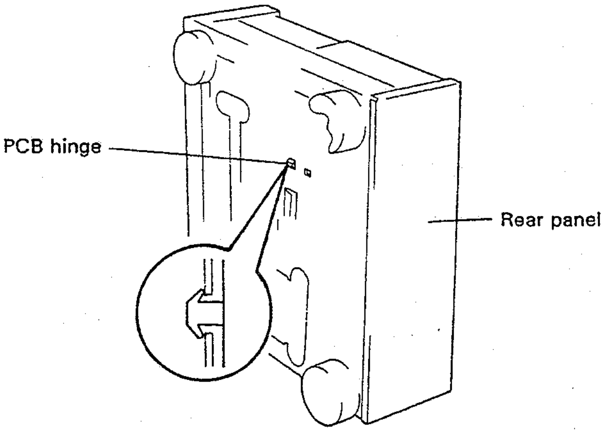
1. Remove the bonnet case (7 screws).
2. Remove the screws on the rear panel. (two screws ①)


Rear panel
Screw ①

3. Use nippers to cut at Ⓐ in the REAR SP CENTER SP assembly.
4. Remove the screws on the POWER SUPPLY assembly. (four screws ②)

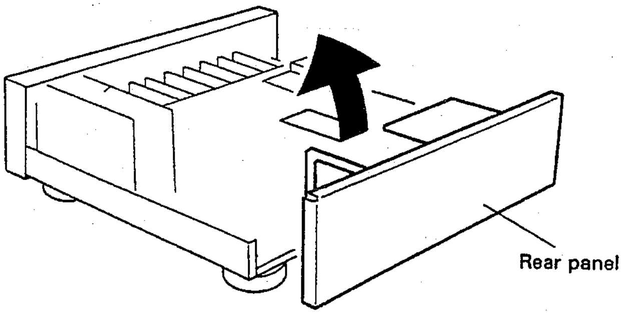

Screw ②
POWER SUPPLY assembly
Ⓐ
REAR SP CENTER SP assembly

5. Stand the unit upright, and use fine-nosed pliers to press in the PCB hinge on the rear panel.


PCB hinge
Rear panel

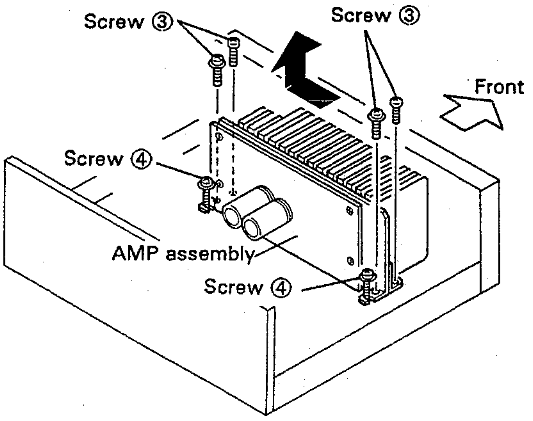
> ***Note :***
> ***Avoid shorting the unit by using an insulation sheet or similar between transformer TP and other assemblies when positioning the unit securely.***

6. Return the unit to its original position. Pull the rear panel toward the operator and securely place it so that the side with the POWER SUPPLY assembly buttons are visible.

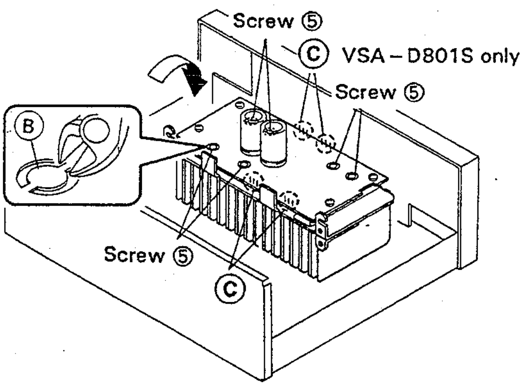


9.2 AMP ASSEMBLY

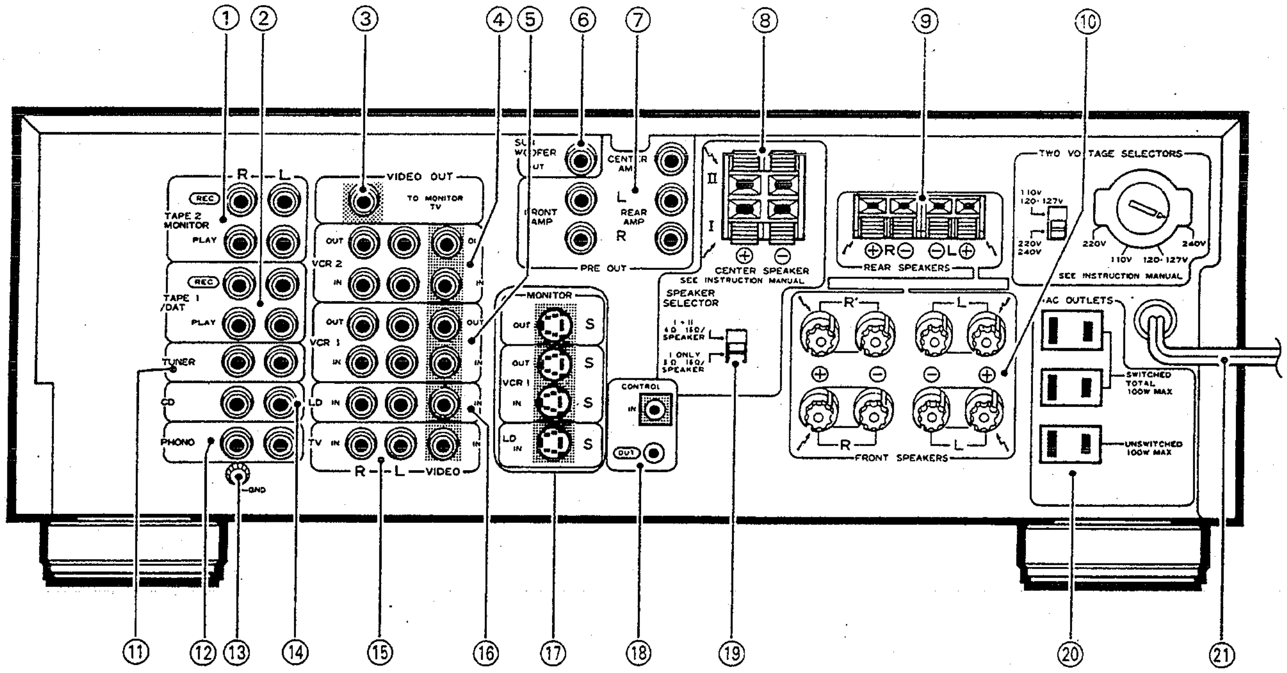
1. Remove the four heat sink locking screws ③ and loosen the two regular screws④.
2. Cut the binder with nippers.


Screw ③
Screw ③
Front
Screw ④
AMP assembly
Screw ④

3. Cut the AMP assembly at Ⓑ with nippers and then remove the six screws ⑤.
4. Remove the transistor solder at Ⓒ (four locations).


Screw ⑤
Ⓒ VSA-D801S only
Screw ⑤
Ⓑ
Screw ⑤
Ⓒ

10. PANEL FACILITIES


①
②
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⑤
⑥
⑦
⑧
⑨
⑩
R
L
VIDEO OUT
TO MONITOR TV
REC
TAPE 2 MONITOR
PLAY
TAPE 1 /DAT
TUNER
CD
PHONO
GND
OUT
IN
VCR 2
VCR 1
LD IN
TV IN
VIDEO
MONITOR
S
SUB WOOFER OUT
FRONT AMP
CENTER AMP
REAR AMP
PRE OUT
CENTER SPEAKER
SEE INSTRUCTION MANUAL
SPEAKER SELECTOR
CONTROL
REAR SPEAKERS
FRONT SPEAKERS
TWO VOLTAGE SELECTORS
110V
120-127V
220V
240V
AC OUTLETS
SWITCHED TOTAL 100W MAX
UNSWITCHED 100W MAX
⑪
⑫
⑬
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⑮
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⑱
⑲
⑳
㉑

① TAPE 2 MONITOR jacks

Connect the second cassette deck to these jacks.

Connecting for Recording

The tape recording jack (REC) on the cassette deck should be connected to the REC side of the TAPE 2 MONITOR jack on the amplifier with a pin plug connecting cord.

Connecting for Playback

Connect the TAPE PLAY jack on the cassette deck to the PLAY side of the TAPE 2 MONITOR jack on the amplifier with a pin plug connecting cord.

② TAPE 1/DAT jacks

Use these to connect the cassette deck or DAT (digital audio tape) deck.

Connecting for Recording

The tape recording jack (REC) on the cassette deck or DAT should be connected to the REC side of the TAPE 1/DAT jack on the amplifier with a pin plug connecting cord.

Connecting for Playback

Connect the PLAY jack on the cassette deck or DAT to the PLAY side of the TAPE 1/DAT jack on the amplifier with a pin plug connecting cord.

③ VIDEO OUT (TV MONITOR) jack

Connect to monitor TV or to TV sets with video input terminals for watching program materials from a VCR 1, 2 or LD player connected to this unit.

④ VCR 2 jacks

[VIDEO OUT]

When copying program material from the video component connected to the VCR 1 or LD jacks, connect to the VIDEO INPUT jacks of the VCR used for recording.

[AUDIO OUT (L, R)]

When copying program materials from the video component connected to the VCR 1 or LD jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR used for recording.

[VIDEO IN]

When monitoring the video image from a VCR used for copying, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When monitoring the audio channel from a VCR used for copying, connect its AUDIO OUTPUT jacks here.

⑤ VCR 1 jacks

[VIDEO OUT]

When copying program material from the video component connected to the VCR 2 or LD jacks, connect to the VIDEO INPUT jacks of the VCR used for recording.

[AUDIO OUT (L, R)]

When copying program material from the video component connected to the VCR 2 or LD jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR used for recording.

[VIDEO IN]

When monitoring the video image from a VCR used for playing, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When monitoring the audio channel from a VCR used for playing, connect its AUDIO OUTPUT jacks here.

⑥ SUB WOOFER OUT jack

If you want to boost the low frequencies, or you want to use the unit in a 3D system, connect to a sub woofer power amplifier.

⑦ PRE OUT jacks

[FRONT AMP]

When a separate power amplifier is used to drive the front speakers, connect the power amplifier to these jacks.

[CENTER AMP]

When a separate power amplifier is used to drive the surround center speaker, connect the power amplifier to this jack.

[REAR AMP]

When a separate power amplifier is used to drive the rear speakers, connect the power amplifier to these jacks.

⑧ CENTER SPEAKER terminals

Connect the center speaker to these terminals. (See ⑲)

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use center speakers of impedance 8 Ω — 16 Ω.

⑨ REAR SPEAKERS terminals

Connect the rear speakers to these terminals.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use rear speakers of impedance 8 Ω — 16 Ω.

⑩ FRONT SPEAKERS terminals

A: Connect to the first set of speakers.
B: Connect to the second set of speakers.
Speaker lead wire preparation and connection.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use speakers of impedance 8 Ω — 16 Ω.

⑪ TUNER input jacks

Connect to the output jacks of the tuner.

⑫ PHONO input jacks

Connect to the output cables from a turntable.

⑬ GND terminal

Connect the turntable ground lead to this terminal.

⑭ CD input jacks

Connect to the output jacks of a compact disc player.

⑮ TV jacks (input)

Use these jacks if you wish to connect a TV tuner with both video and audio outputs.

[VIDEO IN]

Connect the TV tuner's VIDEO OUTPUT to this jack.

[AUDIO IN (L, R)]

Connect the TV tuner's AUDIO OUTPUT to these jacks.

⑯ LD jacks

[VIDEO IN]

When watching the video image from an LD player, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When playing back the audio channel from an LD player, connect its AUDIO OUTPUT jacks here.

⑰ S (connector) video jacks

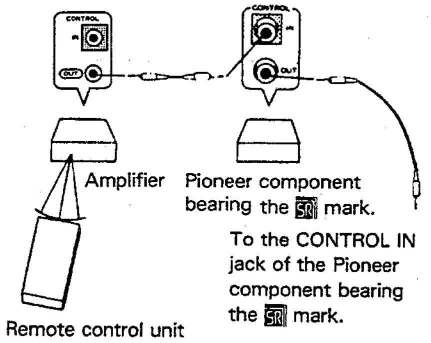
When used in conjunction with a VCR, Video disc player (LaserDisc player) or TV monitor equipped with S video jacks, connect to these jacks.

⑱ CONTROL IN/OUT jacks

IN: Connect this jack to other Pioneer components (main unit or remote control unit) when using those components to control this unit.
OUT: Connect this jack to other Pioneer components when using the remote control of this unit to control the other components.

NOTE:

The amplifier's remote sensor does not function when a plug is inserted in IN jack. To operate, point the remote control unit at the remote sensor on the component to which the amplifier's IN jack is connected.


CONTROL
IN
OUT
CONTROL
IN
OUT
Amplifier
Pioneer component bearing the SR mark.
To the CONTROL IN jack of the Pioneer component bearing the SR mark.
Remote control unit

⑲ CENTER SPEAKER SELECTOR Switch

This switch changes the speaker impedance for when only one center speaker is connected, or two speakers are connected.

When only one speaker is connected:

Be sure to set the switch to "I ONLY" (down side), and always connect a speaker with impedance of 8 to 16 ohms to the I terminal.

When two speakers are connected:

Be sure to set the switch to "I + II" (up side), and always use speakers with an impedance of 4 to 16 ohms.

NOTE:

Switch the SPEAKER SELECTOR when the unit power supply is at STANDBY. Do not switch the selector when the power supply is at ON.

⑳ AC OUTLETS

[SWITCHED TOTAL 100 W MAX]

Power supplied through these outlets is turned on and off by the amplifier's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.

[UNSWITCHED 100 W MAX]

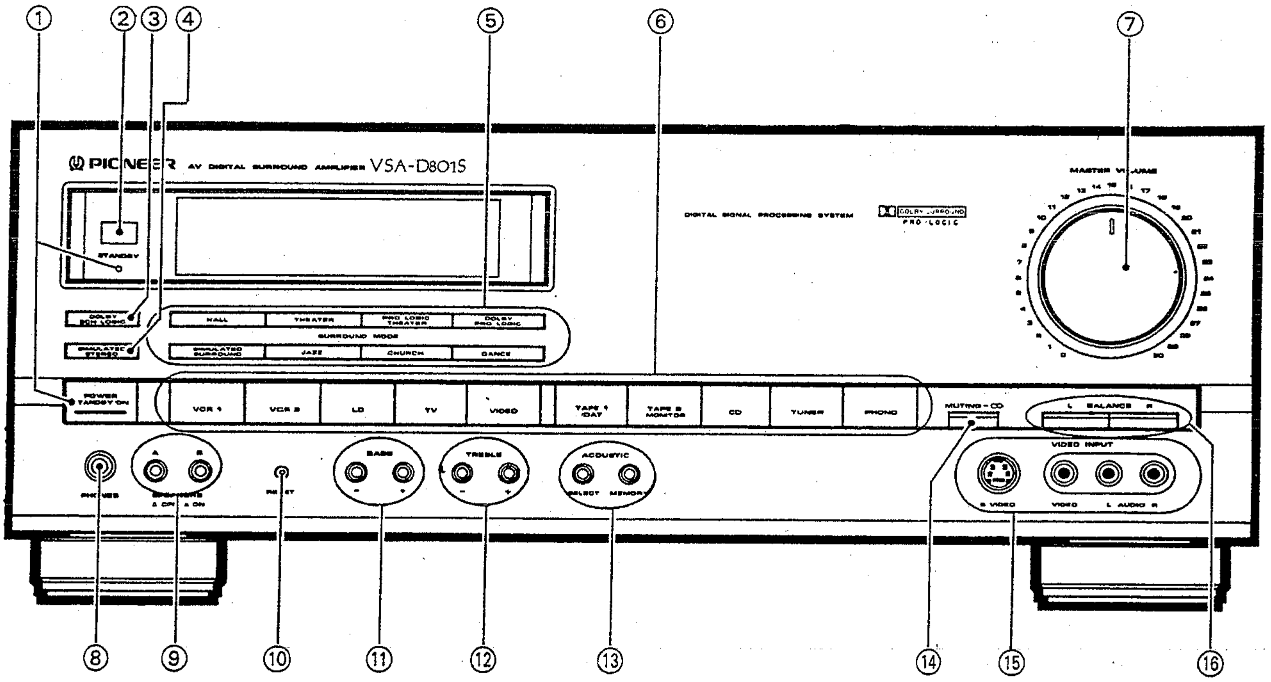
Power flows continually to this outlet, regardless of whether the amplifier is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W.

NOTE:

- *This unit should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.*
- *Do not connect appliances with high power consumption such as heaters, irons, or television sets to these AC OUTLETS in order to avoid overheating and fire risk.*
  This can cause the amplifier to malfunction.

CAUTION:
DO NOT CONNECT MONITOR OR TV SET.

㉑ Power cord


①
②
③
④
⑤
⑥
⑦
PIONEER AV DIGITAL SURROUND AMPLIFIER VSA-D801S
DIGITAL SIGNAL PROCESSING SYSTEM
DOLBY SURROUND PRO LOGIC
MASTER VOLUME
STANDBY
DOLBY 3CH LOGIC
SIMULATED STEREO
HALL
THEATER
PRO LOGIC THEATER
DOLBY PRO LOGIC
SURROUND MODE
SIMULATED SURROUND
JAZZ
CHURCH
DANCE
POWER STANDBY/ON
VCR 1
VCR 2
LD
TV
VIDEO
TAPE 1 /DAT
TAPE 2 MONITOR
CD
TUNER
PHONO
MUTING
BALANCE
VIDEO INPUT
PHONES
SPEAKERS
A
B
RESET
BASS
TREBLE
ACOUSTIC
SELECT
MEMORY
S VIDEO
VIDEO
L AUDIO R
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯

① POWER STANDBY/ON switch/STANDBY indicator

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.
The STANDBY indicator lights when the power is STANDBY, and goes out during ON.

[Timer ON/OFF possible]
When the unit is switched ON, ON/OFF control can be performed by means of the optional timer.

NOTE:
When the power is initially turned ON, muting will be applied to prevent sound from being output for about 5 seconds.

② Remote sensor

③ DOLBY 3CH LOGIC button

Select this setting when stereo-source regeneration and rear speakers are not connected and you wish to use the front L, front R, and center speakers to enjoy audio/visual material bearing the DOLBY SURROUND mark.

④ SIMULATED STEREO button

Press to produce a simulated stereo effect when listening to monaural sources (for example, normal AM or TV broadcasts).
"SIMULATED STEREO" appears on the display section.

NOTE:
- *This effect is not produced through the rear speakers.*
- *Use with the SURROUND MODE in the OFF.*

⑤ SURROUND MODE selector buttons

See page 5 "SURROUND EFFECT".

⑥ INPUT SELECTOR buttons

VCR 1: Press when performing playback on a first VCR unit.
VCR 2: Press when performing playback on a second VCR unit.
LD: Press when performing playback on an LD player.
TV: Press when using a TV tuner connected to the TV jacks.
VIDEO: Press when performing playback on a VCR connected to VIDEO INPUT jacks on the front panel.
TAPE 1/DAT:
Press when performing playback on a DAT or cassette deck.
TAPE 2 MONITOR:
Press when performing playback on a second cassette deck or second DAT and when monitoring recording.
CD: Press when playing compact discs on a CD player.
TUNER: Press when listening to radio broadcasts.
PHONO: Press when playing records on turntable.

⑦ MASTER VOLUME control

Use it to simultaneously adjust the sound volume from the front, center and rear speakers.

⑧ PHONES jack

Connect the plug on your headphones to this jack. Set all SPEAKERS A and B switches to OFF if you want to cut the sound from speakers and listen to it only through the headphones.

⑨ SPEAKERS buttons (A, B) ■ OFF ▬ ON

ON/OFF switches for the A and B speaker systems.

NOTE:

No sound will be heard thorough the speakers when both A and B buttons are depressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

⑩ RESET button

Use this when normal operation becomes impossible because of external influences such as static electricity or lightning, or when operation is impossible even when operation buttons are pressed. Press this button to return to normal operating conditions.
If you press this button when the power is ON, the unit switches to POWER STANDBY, and the entire contents of the memory are erased.

⑪ BASS control buttons

Use to adjust the low-frequency level. Press the + button to increase the low-frequency level, and the – button to decrease it.
The TONE indicator appears on the display section.
When both buttons (–, +) of the BASS control are pressed simultaneously, the bass response will be set to the flat (normal) condition.

⑫ TREBLE control buttons

Use to adjust the high-frequency level. Press the + button to increase the high-frequency level, and the – button to decrease it.
The TONE indicator appears on the display section.
When both buttons (–, +) of the TREBLE control are pressed simultaneously, the treble response will be set to the flat (normal) condition.

⑬ ACOUSTIC buttons

MEMORY:

Pressing this button will result in the memorization of the sound quality (tone control condition). Press again to cancel this mode.

SELECT:

- This button is used to preset the five acoustic memories (A–E).
- This button is also used to recall previously set sound quality settings. Each time you press the button, the sound quality setting advances in the order shown below.

→ FLAT → LOUDNESS → A → B → C → D → E →

FLAT:	For flat (normal) frequency response.
LOUDNESS:	Emphasizes the low- and high- frequency ranges. Produces a fuller sense of sound, particularly when listening at low volume.
A–E:	Memorized acoustic memory settings.

⑭ MUTING button

Press to temporarily cut off the sound volume. The display section MUTING indicator will flash. When pressed again, the sound will return to its previous level.

⑮ VIDEO INPUT jacks

Video components such as a VCR or TV camera, etc. can be connected here.

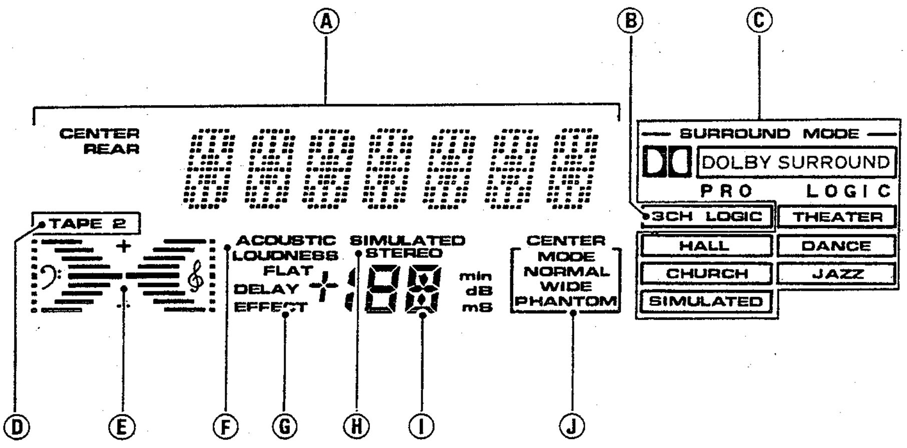
⑯ BALANCE buttons

Use them to adjust the sound volume balance between left and right speakers.
L: Press to decrease the sound on the right side.
R: Press to decrease the sound on the left side.
Press L and R together to bring the volume balance back to center.

NOTE:

The left-right sound volume balance cannot be adjusted on the rear speakers.

DISPLAY SECTION


Ⓐ
Ⓑ
Ⓒ
CENTER
REAR
SURROUND MODE
DOLBY SURROUND
PRO LOGIC
3CH LOGIC
THEATER
HALL
DANCE
CHURCH
JAZZ
SIMULATED
TAPE 2
ACOUSTIC
LOUDNESS
FLAT
DELAY
EFFECT
SIMULATED
STEREO
min
dB
mS
CENTER
MODE
NORMAL
WIDE
PHANTOM
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Ⓘ
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Ⓐ CHARACTER/BALANCE display

- This displays the name of the component selected with the INPUT SELECTOR, etc.
- It also displays the rear level, center level and balance settings during adjustment.

Ⓑ DOLBY 3CH LOGIC indicator

Ⓒ SURROUND MODE indicators

Ⓓ TAPE 2 indicator

Lights up when the INPUT SELECTOR is set to TAPE 2 MONITOR ON.

Ⓔ TONE level indicator

Shows the settings of the BASS and TREBLE buttons.

Ⓕ ACOUSTIC display

Shows the setting of the ACOUSTIC MEMORY.

Ⓖ DELAY/EFFECT indicator

Ⓗ SIMULATED STEREO indicator

Ⓘ ACOUSTIC/DELAY TIME/EFFECT LEVEL/SLEEP TIME display

- Indicates delay time (ms) when using DOLBY PRO LOGIC SURROUND.
- Indicates rear level and center level (dB).
- Indicates sleep timer settings (min).
- Displays Acoustic memory letters A to E.
- Displays surround effect level from 10 to 100.

Ⓙ CENTER MODE indicators

These display the center mode (NORMAL, WIDE, PHANTOM) during DOLBY PRO LOGIC SURROUND. With DOLBY 3CH LOGIC, NORMAL or WIDE center mode will be indicated.

11. SPECIFICATIONS

Amplifier Section

STEREO (FRONT)

Continuous average power output of 110 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.05 % total harmonic distortion (front).**

Continuous power output (Front and center driven)	
Front	65 W + 65 W (1 kHz, T.H.D. 0.8 %, 8 Ω)
Center	65 W (1 kHz, T.H.D. 0.8 %, 8 Ω)
Rear	20 W + 20 W (1 kHz, T.H.D. 0.8 %, 8 Ω)
Dynamic Power (4 Ω/2 Ω)	220 W/240 W
Total Harmonic Distortion (Front)	
20 Hz – 20 kHz, 110 W, 8 Ω	0.05%
Input (Sensitivity/Impedance)	
PHONO MM	2.5 mV/47 kΩ
CD, TAPE 1/DAT, TAPE 2, TUNER, LD, VCR 1, VCR 2, TV, VIDEO	150 mV/47 kΩ
Phono Overload Level (T.H.D. 0.1 %, 1 kHz)**	
PHONO MM	130 mV
Frequency Response	
PHONO MM	20 Hz to 20,000 Hz ±0.3 dB
CD, TAPE 1/DAT, TAPE 2, TUNER, LD, VCR 1, VCR 2, TV, VIDEO	5 Hz to 100,000 Hz $^{+0}_{-3}$ dB
Output (Level/Impedance)	
TAPE 1/DAT REC, TAPE 2 REC	150 mV/2.2 kΩ
VCR 1 OUT, VCR 2 OUT	150 mV/2.2 kΩ
PRE OUT	1 V/2.2 kΩ
Tone Control	
BASS	±8 dB (100 Hz)
TREBLE	±8 dB (10 kHz)
Muting	–∞
Loudness Contour	6 dB (100 Hz) 3 dB (10 kHz)
Signal-to-Noise Ratio (IHF, short circuited, A network)	
PHONO MM	76 dB
CD, TAPE 1/DAT, TAPE 2, TUNER, LD, VCR 1, VCR 2, TV, VIDEO	97 dB

* ***Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifier.***

** ***Measured by Audio Spectrum Analyzer.***

VIDEO Section

Input (Sensitivity/Impedance)	
VCR 1, VCR 2, LD, TV, VIDEO	1 Vp-p/75 Ω
Output (Level/Impedance)	
VCR 1, VCR 2, MONITOR	1 Vp-p/75 Ω
Frequency Response	
VCR 1, VCR 2, LD, TV, VIDEO → MONITOR	5 Hz – 10 MHz $^{+0}_{-3}$ dB
Signal to Noise Ratio	60 dB

S-VIDEO Section

Input (Sensitivity/Impedance)	
LD, VIDEO, VCR 1	1 Vp-p/75 Ω (Luminance Signal) 0.286 Vp-p/75 Ω (Color Signal)
Output (Level/Impedance)	
VCR 1, MONITOR	1 Vp-p/75 Ω (Luminance Signal) 0.286 Vp-p/75 Ω (Color Signal)
Frequency Response	
LD, VCR 1 → MONITOR	5 Hz – 7 MHz $^{+0}_{-3}$ dB
Signal to Noise Ratio	60 dB

Surround Section

Rear Frequency Response	30 Hz – 7,000 Hz $^{+0}_{-3}$ dB
Delay Time (DOLBY PRO LOGIC SURROUND)	
Variable range	16 ms – 30 ms
Step	2 ms

Miscellaneous

Power requirements	AC 110 V/120 – 127 V/220 V/240 V (Switchable), 50/60 Hz
Power consumption	660 W
AC Outlets	
SWITCHED x 2	TOTAL 100 W MAX
UNSWITCHED x 1	100 W MAX
Dimensions	420 (W) x 162 (H) x 417 (D) mm 16-9/16 (W) x 6-3/8 (H) x 16-7/16 (D) in
Weight (without package)	10.3 kg (22 lb 11 oz)

Furnished Parts

Remote control unit	1
Dry cell batteries (size "AA" (IEC LR6/AM-3) Alkaline)	2
Operating Instructions	1

NOTE:

Specifications and the design are subject to possible modifications without notice due to improvements.

PIONEER®
The Art of Entertainment

Service Manual

ORDER NO.
ARP2561

AV DIGITAL SURROUND AMPLIFIER

VSA-701S

HB, HE

- **Refer to the service manual ARP2560 for VSA-D801S.**
- **This manual is applicable to VSA-701S/HB and HE.**

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1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

VSA−701S/HB, HE and VSA−D801S/SD have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		VSA−D801S/SD	VSA−701S/HB	VSA−701S/HE	
◉	AMP assembly	AWZ4286	AWZ4538	AWZ4538	
◉	POWER SUPPLY assembly	AWZ4381	AWZ4539	AWZ4539	
◉	REAR SP CENTER SP assembly	AWZ4382	AWZ4540	AWZ4540	
◉	CONNECTION assembly	AWZ4385	AWZ4390	AWZ4390	
◉	VOLUME assembly	AWZ4387	AWZ4545	AWZ4545	
◉	FL. U−COM assembly	AWK1552	AWK1560	AWK1560	
◉	DSP assembly	AWZ4294	....	....	
	DOL. PRO. MOD. assembly	....	AXQ1009	AXQ1009	
⚠	Q7 Power transistor	2SC4688	....	....	
⚠	Q9 Power transistor	2SA1803	....	....	
⚠	S1 Voltage selector (AC110V/120−127V/220V/240V)	AKX−507	....	....	
⚠	S2 Voltage selector (AC110V−127V/220V−240V)	AKX1004	....	....	
⚠	T1 Power transformer (AC110V, 120−127V, 220V, 240V)	ATS1427	....	....	
⚠	T1 Power transformer (AC220V−230V, 240V)	....	ATS1435	ATS1435	
⚠	C10−C12 Mylar film capacitor	....	CQMA104K250	CQMA104K250	See pages 22, 23
⚠	C15−C17 Mylar film capacitor	CQMA104K250	....	....	
⚠	FU1 Fuse (4A/125V)	AEK−125	....	....	
⚠	FU1 Fuse (T2.5A/250V)	....	AEK−512	AEK−512	
⚠	FU2 Fuse (4A/125V)	AEK−125	....	....	
⚠	FU3, FU4 Fuse (4A/125V)	AEK−125	....	....	
⚠	FU3, FU4 Fuse (T2.5A/250V)	....	AEK−512	AEK−512	
⚠	FU5, FU6 Fuse (1.25A/125V)	AEK−120	....	....	
⚠	FU5, FU6 Fuse (T1.25A/250V)	....	AEK−509	AEK−509	
⚠	AC Power cord	ADG1051	ADG1087	ADG1049	
⚠	Fuse holder	AKR1001	....	....	
	FL filter	AAK2313	AAK2364	AAK2364	
NSP	Barrier (PVC)	AEC1412	....	....	
	Panel base	AMB2003	AMB2004	AMB2004	
	Front panel	ANB1518	ANB1519	ANB1519	

Mark	Symbol & Description	Part No.			Remarks
		VSA-D801S/SD	VSA-701S/HB	VSA-701S/HE	
NSP	Rear panel	ANC1898	ANC1928	ANC1928	
NSP	Heat sink	ANH1379	ANH1399	ANH1399	
	Packing case	AHD2396	AHD2394	AHD2394	
	Operating instructions (English)	ARB1382	ARB1399	....	
	Operating instructions (Dutch, Swedish, Spanish, Portuguse)	....	....	ARC1373	
	Operating instructions (English, French, German, Italian)	....	....	ARE1248	
	Remote control unit (CU-VSA019)	AXD1271	....	....	
	Remote control unit (CU-VSA022)	....	AXD1283	AXD1283	

2. PCB PARTS LIST (FOR VSA-701S/HB AND HE)

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56×10^1 → 561 .... RD1/8PM$\boxed{5}\boxed{6}\boxed{1}$J
47kΩ → 47×10^3 → 473 .... RD1/4PS$\boxed{4}\boxed{7}\boxed{3}$J
0.5Ω → 0R5 .... RN2H$\boxed{0}\boxed{R}\boxed{5}$K
1Ω → 010 .... RS1P$\boxed{0}\boxed{1}\boxed{0}$K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562×10^1 → 5621 .... RN1/4PC$\boxed{5}\boxed{6}\boxed{2}\boxed{1}$F

LIST OF ASSEMBLIES

Mark	No.	Description	Parts No.
◉		FL. U-COM ASSEMBLY	AWK1560
NSP		FRONT SP ASSEMBLY	AWZ4261
NSP		TRANS TERMINAL ASSEMBLY	AWZ4268
◉		SP SW ASSEMBLY	AWZ4289
◉		AMP ASSEMBLY	AWZ4538
◉		POWER SUPPLY ASSEMBLY	AWZ4539
◉		REAR SP CENTER SP ASSEMBLY	AWZ4540
◉		REG. (12V) ASSEMBLY	AWZ4266
◉		REG. (5.6V) ASSEMBLY	AWZ4267
◉		AUDIO FUNCTION ASSEMBLY	AWZ4383
◉		A/V FUNCTION ASSEMBLY	AWZ4384
NSP		PRE OUT ASSEMBLY	AWZ4386
◉		CONNECTION ASSEMBLY	AWZ4390
◉		VOLUME ASSEMBLY	AWZ4545
		S TERM ASSEMBLY	AWQ1017
		DOL. PRO. MOD. ASSEMBLY	AXQ1009

FL. U-COM ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC601		PDG083A
	Q601-Q604		2SC2458
	Q606-Q610		XDC124ES
	D604		AEL1108
	D601-D603, D607-D625, D628-D633		HSS104-02

SWITCHES

Mark	No.	Description	Parts No.
	S601, S603, S605, S609, S614, S617, S618, S621, S622, S625, S626, S629, S630, S634, S637, S638, S641, S642, S645, S646, S649, S650, S654, S657-S659		ASG1034

Mark	No.	Description	Parts No.
COIL			
	F601		ATF1108
CAPACITORS			
	C601		ACH1135
	C606		CEAS010M50
	C602		CEAS100M50
	C605		CEAS101M10
	C608, C621		CEJA100M50
	C604		CKDYX104M25
	C607		CKPUYF223Z25
	C603, C609, C610, C620		CKPUYF473Z16
RESISTORS			
	All Resistors		RD1/8PM☐☐☐J
OTHERS			
		REMOTE RECEIVER UNIT	AXX1010
	X602	(8.00MHZ)	ASS1015
		PIN JACK 1P	AKB1082
		SOCKET (DIN)	AKP1067
	V601	FL TUBE	AAV1146
		FL SPACER	AEB1120

CONNECTION ASSEMBLY

SEMICONDUCTORS			
	IC301, IC302		NJM4558DXP
	IC303		TC9162N
	Q301		2SC2458
	Q304		2SK246
	Q302		XDA124ES
	Q303		XDC124ES
CAPACITORS			
	C314		CCSQCH471J50
	C305, C306		CCSQCH680J50
	C319		CEAS101M16
	C311, C312, C315		CEAS470M16
	C301−C304, C307−C309		CEAS4R7M50
	C320		CFTXA473J50
	C310, C313		CKSQYB103K50
	C317		CKSQYF103Z50
RESISTORS			
	R323, R324, R329		RS1/10S102J
	R303		RS1/10S104J
	R316		RS1/10S113J
	R315, R318		RS1/10S114J
	R307		RS1/10S122J
	R308		RS1/10S152J
	R310		RS1/10S182J
	R304−R306		RS1/10S223J
	R325, R326		RS1/10S224J
	R309		RS1/10S273J
	R321, R322		RS1/10S333J
	R313, R314, R317		RS1/10S334J
	R301, R302, R311, R312		RS1/10S473J
	R319		RS1/10S822J
	Other Resistors		RD1/8PM☐☐☐J
OTHERS			
	CN14	6P JUMPER CONNECTOR	KPE6
	CN15	9P JUMPER CONNECTOR	KPE9

AMP ASSEMBLY

SEMICONDUCTORS			
	IC162		UPC1270H
	Q107, Q108		2SA1145
	Q103, Q104, Q201		2SA1240
	Q115, Q116, Q204		2SA1306
	Q105, Q106		2SA970
	Q101, Q102		2SC1845
	Q117, Q118, Q206		2SC2240
	Q162, Q164		2SC2458
	Q111, Q112, Q203		2SC2603
	Q109, Q110, Q202		2SC2705
	Q113, Q114, Q205		2SC3298
	D197, D198		D5SB20F
	D101−D108, D111−D114, D117−D122, D162, D164, D166, D199, D200, D204−D206		HSS104−02
	D109, D110, D115, D116, D201		RD10ESB
	D202, D203		RD4.3ESB
RELAY			
	RY199		ASR−112
	RY198		ASR1035
COILS			
	L102−L104		ATH1004
CAPACITORS			
	C200	(0.01/AC150V)	ACG1005
	C198	(8200/DC71V)	ACH1224
	C199	(8200/DC71V)	ACH1225
	C113, C114		CCCSL050C500
	C105−C108		CCCSL101J50
	C212, C222		CCCSL101K500
	C207, C2914		CCCSL121K500
	C117−C120		CCCSL151K500
	C204, C205		CCCSL470J50
	C109, C110, C2915, C2916		CCCSL470K500
	C170		CCCSL680J50
	C123, C124		CEANP010M100
	C176, C211		CEANP2R2M50
	C174		CEAS100M100
	C201, C203		CEAS2R2M50

Mark	No.	Description	Parts No.
	C111, C112, C208		CEAS470M16
	C209		CEAS470M25
	C101, C102		CEAS4R7M50
	C168		CEHAQ101M10
	C162		CEHAQ2R2M50
	C121, C122, C210, C2917−C2919		CFTXA104J50
	C115, C116, C206, C213		CKCYB102K50
	C103, C104		CKCYB122K50
	C125, C126, C166, C202		CKCYB222K50
	C172		CKCYX333M25

RESISTORS

Mark	No.	Description	Parts No.
	R178	(0.22, 2W)	ACN-131
	R145, R146, R218	(0.33, 5W)	ACN1087
	R208		RD1/4PM123J
	R115, R116		RD1/4PM152J
	R207		RD1/4PM431J
	R117, R118		RD1/4PM473J
	R147, R148, R220, R225		RD1/4PMF100J
	R153−R156, R180, R182, R221, R222		RD1/4PMF222J
	R139−R142, R233, R234		RD1/4PMF4R7J
	R121, R122		RD1/4PMF680J
	R129−R136, R214−R217		RD1/4PMFL101J
	R210		RD1/4PMFL470J
	R111−R114		RFA1/4PS391J
	R127, R128		RFA1/4PS470J
	R137, R138, R143, R144, R228, R230−R232		RFA1/4PS4R7J
	R151, R152		RS1LMF100J
	R198, R199		RS1PMF681J
	R197		RS2LMF103J
	Other Resistors		RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	CN29	9P JUMPER CONNECTOR	KPC9

POWER SUPPLY ASSEMBLY

Mark	No.	Description	Parts No.
	IC51		NJM78M56FAS
	Q54, Q56, Q57, Q59		2SA1048
	Q60		2SA1145
	Q51, Q52, Q62, Q63, Q91		2SC2458
	Q64		XDC124ES
	Q61, Q65, Q66		XDC143ES
	D73		D3SBA20 (A)
	D52−D55, D60, D68, D91		HSS104-02
	D61		HZS6A1L
	D58		RD5.1ESB
	D62		RD6.2ESB
	D67		RD8.2ESB
	D63−D66, D69−D72		S5566

RELAY

Mark	No.	Description	Parts No.
	RY51		ASR1027

COIL & TRANSFORMER

Mark	No.	Description	Parts No.
	L51		ATF1006
	T51		ATT1015

CAPACITORS

Mark	No.	Description	Parts No.
⚠	C72, C73	(0.01/AC400V)	ACG1002
	C71	(0.01/AC150V)	ACG1005
	C68, C69	(4700/DC35V)	ACH1021
	C61		CEAS100M50
	C75		CEAS101M35
	C65		CEAS102M25
	C66		CEAS102M35
	C59, C62		CEAS221M16
	C67		CEAS222M35
	C74		CEAS470M10
	C63		CEAS470M16
	C60, C64, C70		CKCYB103K50

RESISTORS

Mark	No.	Description	Parts No.
	R66		RD1/2PM132J
	R200		RD1/2PM432J
	R79		RD1/4PM332J
	R75		RD1/4PMF101J
	R80		RD1/4PMF4R7J
	R81		RD1/4PMFL470J
	R56, R57		RS1LMFR22J
	R55		RS2LMFR22J
	Other Resistors		RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		2P MINI JACK	AKN1006
	CN17	13P JUMPER CONNECTOR	KPE13

REAR SP CENTER SP ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	Q251		XDC143ES
	D251		HSS104-02

RELAY

Mark	No.	Description	Parts No.
	RY251		ASR-111

COIL

Mark	No.	Description	Parts No.
	L251		ATH1004

CAPACITORS

Mark	No.	Description	Parts No.
	C253, C2911		CFTXA104J50

Mark	No.	Description	Parts No.

RESISTORS

	R255, R257		RD1/4PMF100J
	R260		RS1LMF681J
		Other Resistors	RD1/8PM□□□J

OTHERS

		3P PIN JACK	AKB1120
		4P SPEAKER TERMINAL	AKE-109
		4P SPEAKER TERMINAL	AKE1026
	CN25	4P JUMPER CONNECTOR	KPE4

VOLUME ASSEMBLY

SEMICONDUCTORS

	IC561, IC564		M5220L
	IC501, IC521, IC523		NJM4558DXP
	IC503		TA8409S
	IC522, IC562		TC9154AP
	IC563		TC9184P
	Q501		XDC124ES
	D521−D524, D561−D566		HSS104-02
	D506		RD3.3ESB2
	D501, D502		RD5.1ESB2

CAPACITORS

	C567, C568		CCSQCH121J50
	C507, C508, C559, C560		CCSQCH331J50
	C525, C526, C535, C536		CCSQCH470J50
	C511		CEANP101M10
	C565, C566		CEAS010M50
	C569, C570		CEAS100M50
	C512		CEAS101M16
	C561, C562		CEAS2R2M50
	C501, C502		CEAS470M10
	C503, C504, C509, C510, C521, C522, C527, C528, C531, C532, C550, C551, C553, C579, C580		CEAS4R7M50
	C585		CKSQYB102K50
	C505, C506, C523, C524, C533, C534		CKSQYB103K50
	C539		CKSQYB471K50
	C563, C564, C581, C582, C586, C587		CKSQYF103Z50
	C571, C572, C577, C578		CQMA153J50
	C575, C576		CQMA272J50
	C573, C574		CQMA823J50

RESISTORS

	VR501	(100k×4)	ACX1074
	R517		RD1/2PM470J
	R501, R502		RD1/4PM681J
	R599		RS1/10S000J
	R527, R528, R537−R539, R561, R562, R569, R570, R585−R590, R2943, R2944		RS1/10S102J
	R525, R526		RS1/10S103J
	R567, R568		RS1/10S104J
	R583, R584		RS1/10S154J
	R505, R506, R559, R560, R2946, R2948		RS1/10S222J
	R577, R578		RS1/10S223J
	R529, R530		RS1/10S224J
	R523, R524		RS1/10S332J
	R571, R572		RS1/10S362J
	R579, R580		RS1/10S392J
	R531, R532		RS1/10S472J
	R503, R504, R521, R522, R563, R564		RS1/10S473J
	R565, R566		RS1/10S474J
	R508		RS1/10S561J
	R575, R576		RS1/10S564J
	R533, R534		RS1/10S623J
	R581, R582		RS1/10S821J
	R573, R574		RS1/10S823J
		Other Resistors	RD1/8PM□□□J

OTHERS

	CN16, CN18	9P JUMPER CONNECTOR	KPE9

DOL. PRO. MOD. ASSEMBLY

	IC1901		LA2780
	IC1903		LM3364K-15
	IC1902		LV1001M-A
	IC1906		M66320FP
	IC1904		NJM4558M-D
	IC1905		NJM4558M-D
	Q1903		2SD438
	Q1901		DTA143EK
	Q1902		DTC143EK
	D1901−D1905		1SS226

CAPACITORS

	C1938, C1964		CCSCH102J50
	C1971−C1973		CCSQCH101J50
	C1940, C1962		CCSQCH151J50
	C1953		CCSQCH471J50
	C1906, C1922, C1934, C1959		CCSQCH681J50
	C1909, C1910, C1917, C1918		CEANL2R2M50
	C1950		CEANP100M35
	C1956		CEANPR33M50
	C1951		CEAS010M50
	C1903, C1904, C1926, C1927, C1952, C1957, C1958, C1960		CEAS100M50
	C1902		CEAS101M10
	C1928, C1929		CEAS220M16
	C1968, C1941, C1942, C1943		CEAS221M10
	C1930, C1931		CEAS2R2M50
	C1901		CEAS470M25

Mark	No.	Description	Parts No.
	C1936		CEAS471M16
	C1937, C1965		CEAS4R7M50
	C1911, C1916		CEASR15M50
	C1945		CEASR22M50
	C1912, C1915		CEYA3R3M50
	C1905, C1925		CEYAR33M50
	C1933		CFTXA103J50
	C1907, C1908, C1920, C1923, C1924, C1935		CFTXA104J50
	C1932		CFTXA153J50
	C1913, C1914, C1961		CFTXA154J50
	C1939, C1963		CFTXA223J50
	C1949		CFTXA333J50
	C1921		CFTXA334J50
	C1919		CFTXA473J50
	C1946		CFTXA683J50
	C1967		CKSQYB103K50
	C1970		CKSQYB562K50
	C1944, C1966		CKSQYF104Z50
	C1947		CQMA392J50
	C1948		CQMA472J50
	C1954		CQMA562J50
	C1955		CQMA682J50
RESISTORS			
	VR1901	(47k)	ACP1045
	R1962, R1964		RS1/10S100J
	R1917, R1918, R1921, R1922		RS1/10S101J
	R1929, R1930, R1935–R1938, R1943, R1959–R1961, R1963		RS1/10S102J
	R1914, R1940		RS1/10S103J
	R1939		RS1/10S105J
	R1915		RS1/10S152J
	R1906, R1910, R1945		RS1/10S153J
	R1905, R1912		RS1/10S202J
	R1950		RS1/10S222J
	R1933, R1934		RS1/10S223J
	R1931, R1932, R1944, R1951–R1953		RS1/10S224J
	R1942		RS1/10S332J
	R1949		RS1/10S393J
	R1903, R1094, R1916, R1925, R1926		RS1/10S472J
	R1907, R1909, R1923, R1924, R1941, R1957		RS1/10S473J
	R1913		RS1/10S474J
	R1958		RS1/10S513J
	R1908, R1911		RS1/10S752J
	R1946–R1948		RS1/10S822J
	R1901, R1902, R1927, R1928		RS1/10S911J
OTHERS			
	X1901	(8.00MHZ)	ASS1015

- The other assemblies of VSA – 701S/HB and HE are the same as those of VSA – D801S/SD.

3. SCHEMATIC DIAGRAMS AND PCB PATTERNS

Note: (Type 1)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or µF unless otherwise noted.
   Ratings: capacitor (µF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or µH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭V : Signal voltage at rated output.
   ▭ : DC voltage (V) at no input signal unless otherwise noted. Value in ( ) is DC voltage at rated power.
   ⇐ mA or ← mA : DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ➡ : Signal route.
   - ⊘ : Adjusting point.
   - ▼ (Red) : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES** (Underline indicates switch position):

S3	CENTER SP SW	SINGLE – DUAL

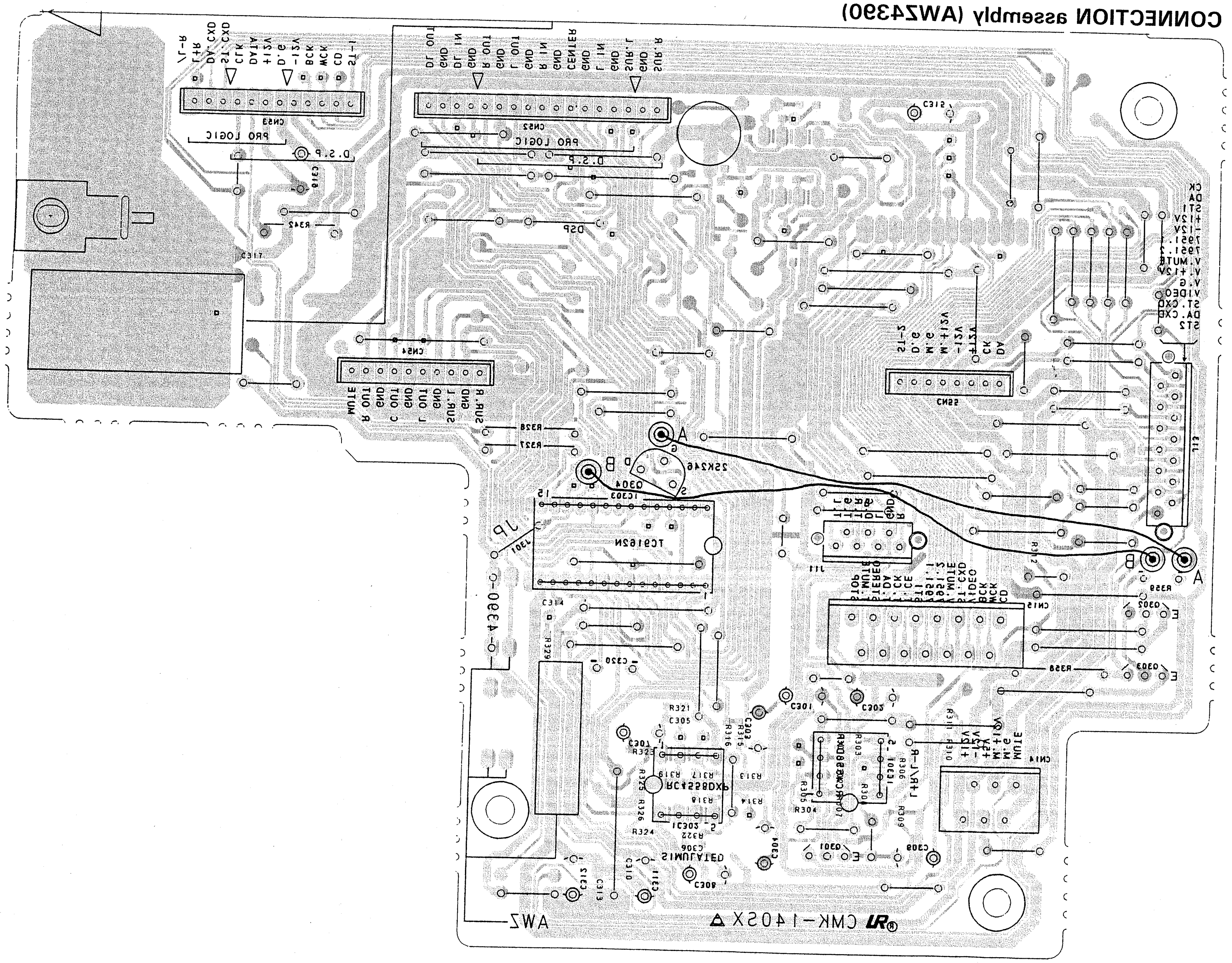
FL. U – COM assembly

S601	SIMULATED STEREO
S603	POWER STANDBY/ON
S605	SIMULATED SURR.
S609	STUDIO
S614	VCR 1
S617	BASS DOWN (–)
S618	VCR 2
S621	TREBLE DOWN (–)
S622	LD
S625	DOLBY PRO LOGIC
S626	TV
S629	BALLANCE LCH
S630	VIDEO
S634	TAPE 1/DAT
S637	BASS UP (+)
S638	TAPE 2/MONITOR
S641	DOLBY 3CH LOGIC
S642	CD
S645	TREBLE UP (+)
S646	TUNER
S649	BALLANCE RCH
S650	PHONO
S654	ACOUSTIC SELECT
S657	MUTING
S658	ACOUSTIC MEMORY
S659	RESET

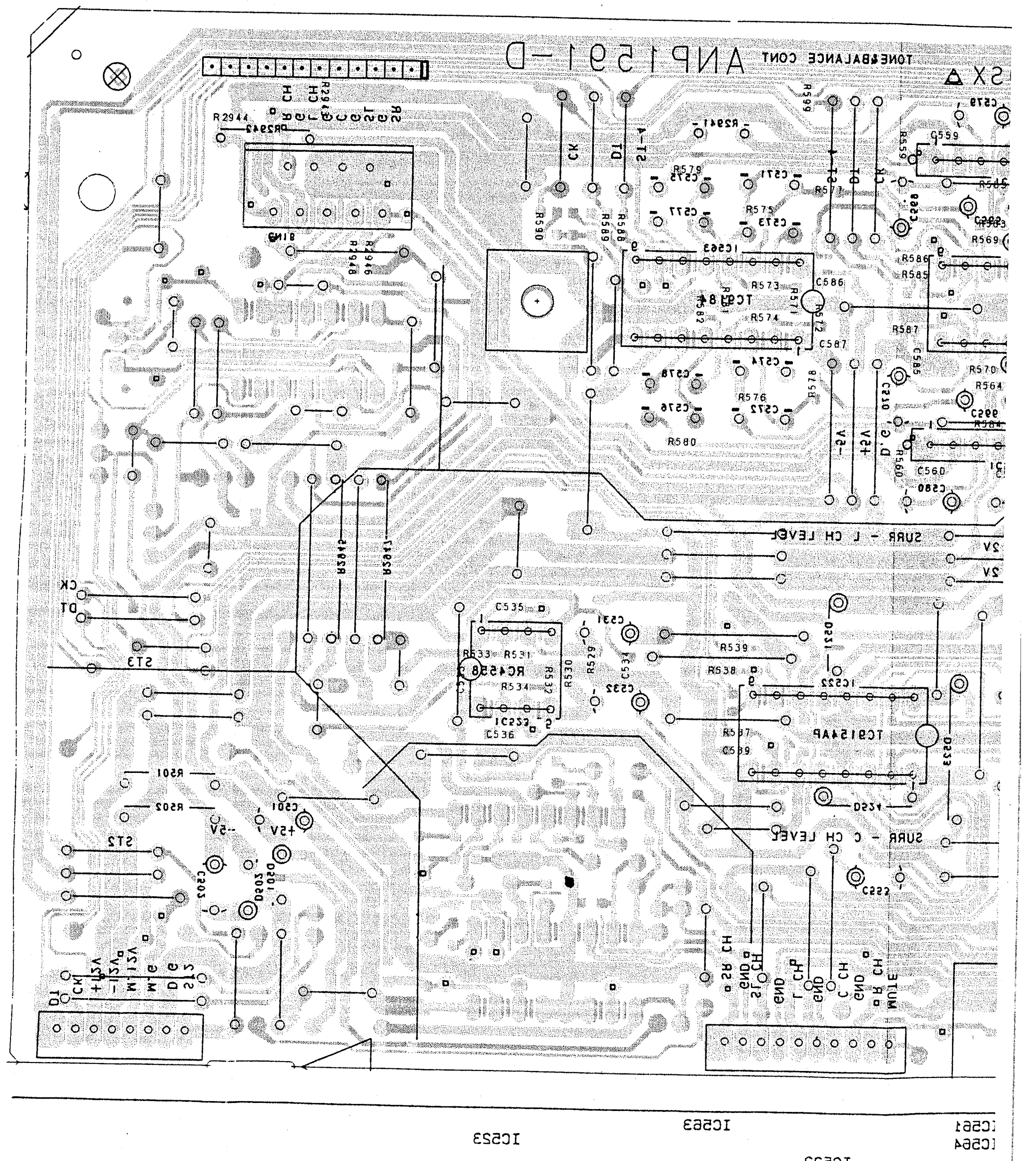
SP SW assembly

S251	SP – A ON/OFF SP – B ON/OFF

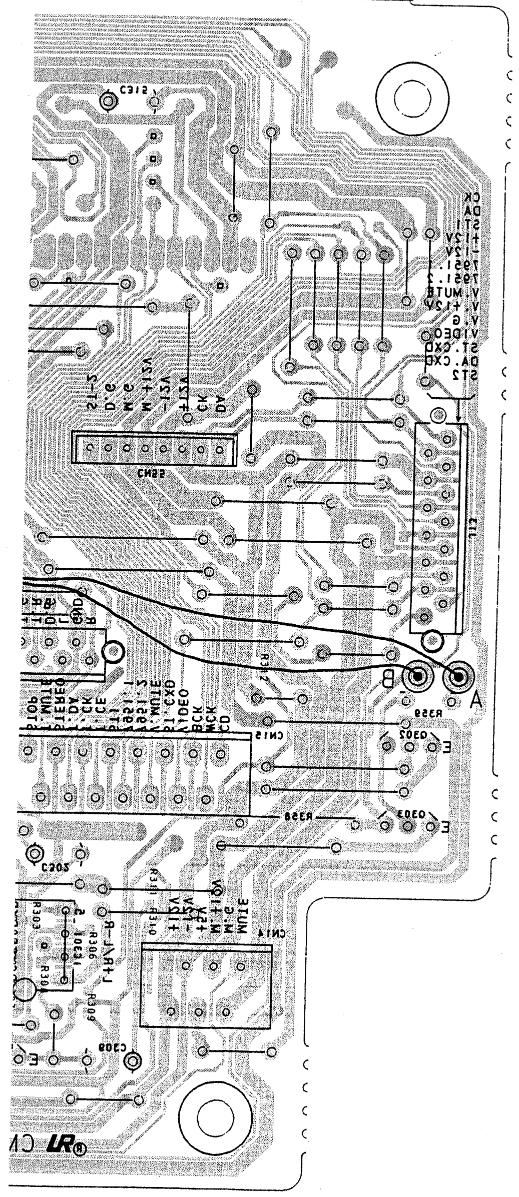
3.1 VOLUME ASSEMBLY AND CONNECTION ASSEMBLY


CONNECTION assembly (AWZ4390)
CMK-140SX
AWZ
PRO LOGIC
D.S.P
CN52
CN53
CN54
CN55
DSP
TC9162N
2SK246
IC303
RC4558DXP
SIMULATED
JP
A
B

This PCB connection diagram is viwed from the foil side.

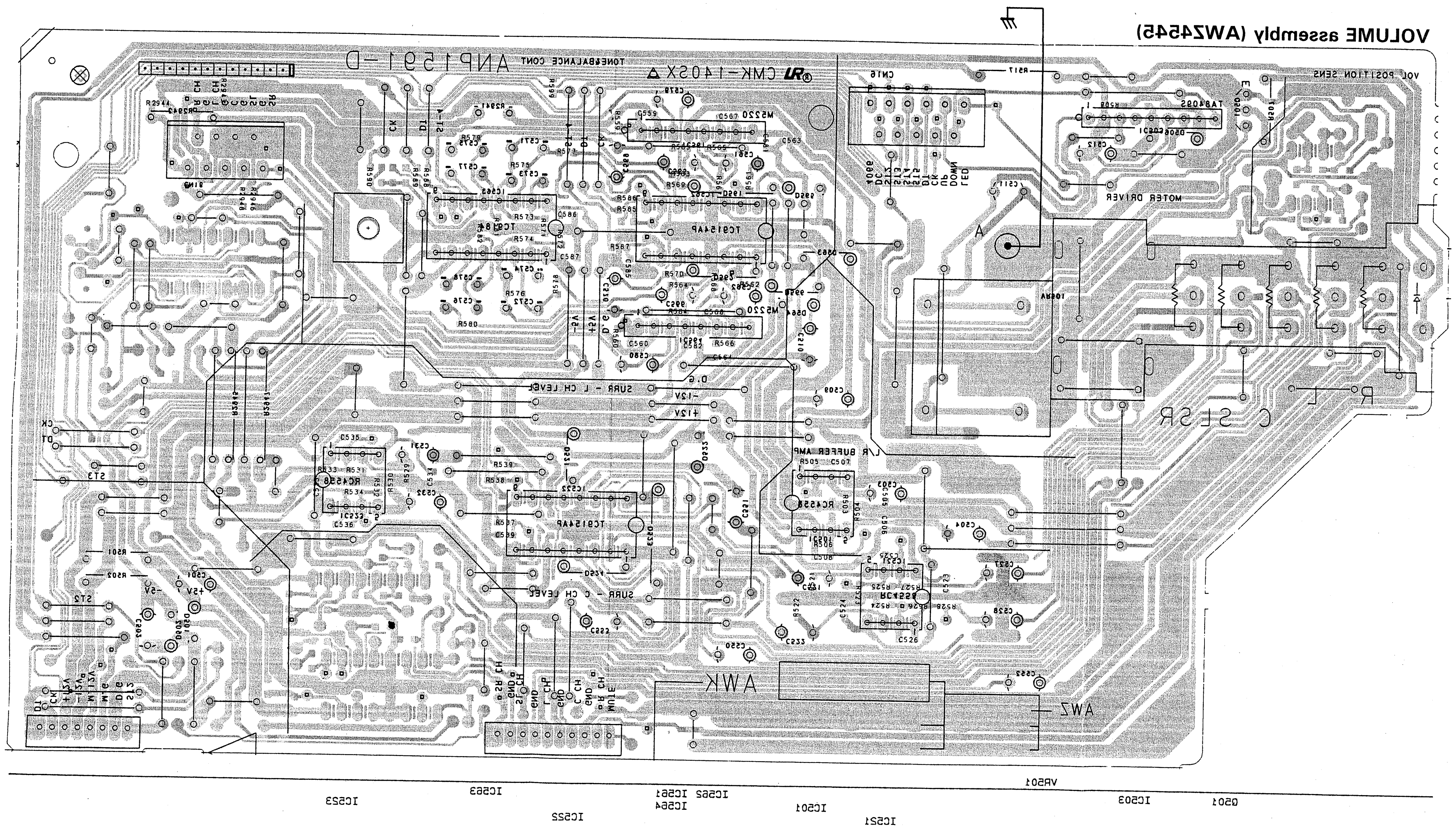

ANP1591-D
TONE&BALANCE CONT
SURR - L CH LEVEL
SURR - C CH LEVEL
RC4558
TC9154AP
TC9184
IC561
IC564
IC522
IC563
IC523

CONNECTION assembly (AWZ439


CN15
CN14
CN52
J12
A
B
E
Q302
Q303
R358
R359
C205
C308
CK
DA
ST1
+12V
-12V
V.MUTE
V.+12V
VIDEO
ST.CXD
DA.CXD
ST2
BCK
WCK
MUTE

gram is viwed from the foil side.

VOLUME assembly (AWZ4545)


ANP1591-D
CMK-1405X
TONE&BALANCE CONT
VOL POSITION SENS
MOTER DRIVER
L/R BUFFER AMP
SURR - L CH LEVEL
SURR - C CH LEVEL
+12V
-12V
AWK
AWZ
TC9154AP
RC4558
M5220
TA8408S
CN16
VR501
IC503
IC501
IC521
IC522
IC523
IC553
IC561
IC562
IC564
Q501
R S L C SL SR
A

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

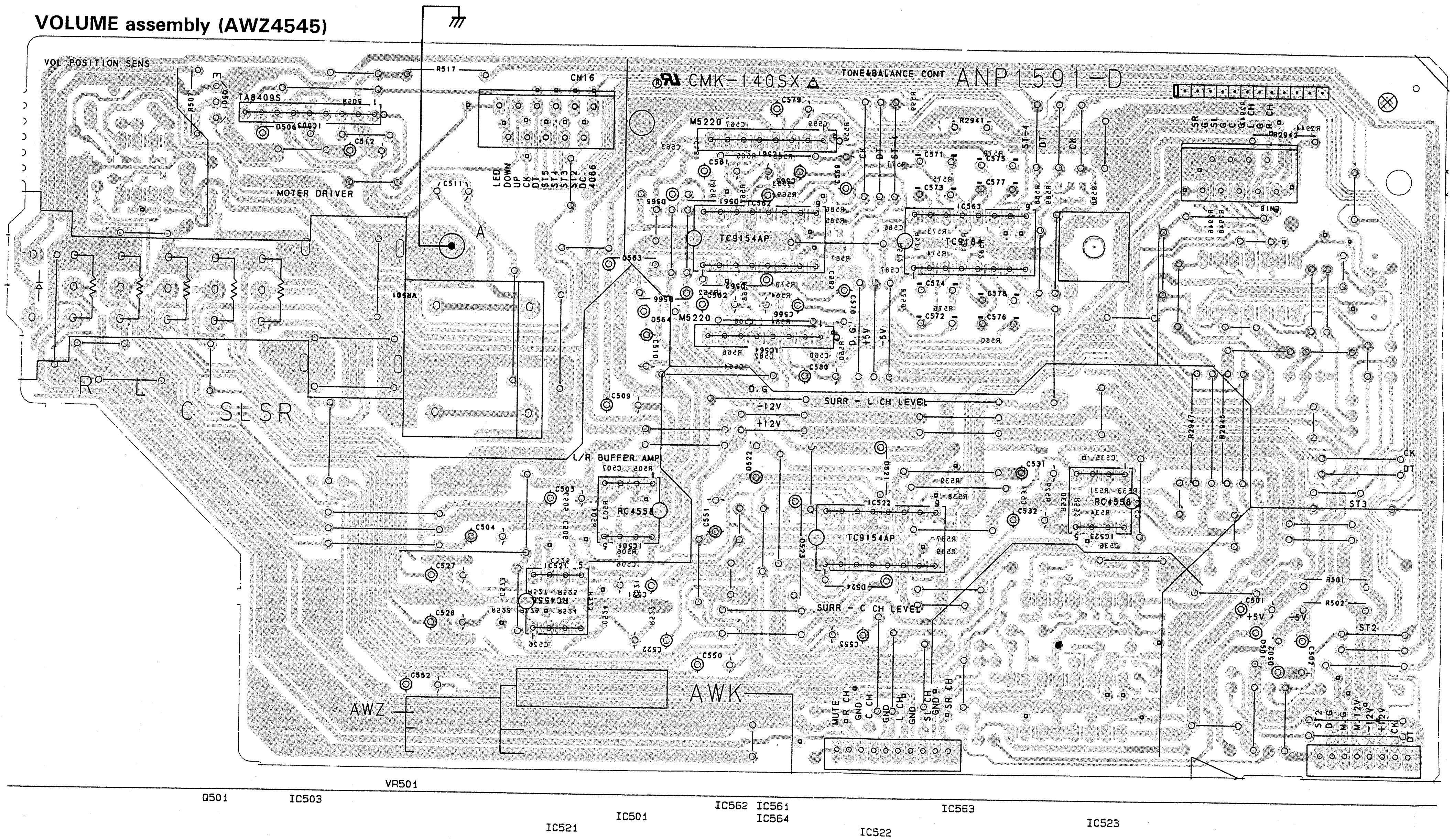
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E Q504	E or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

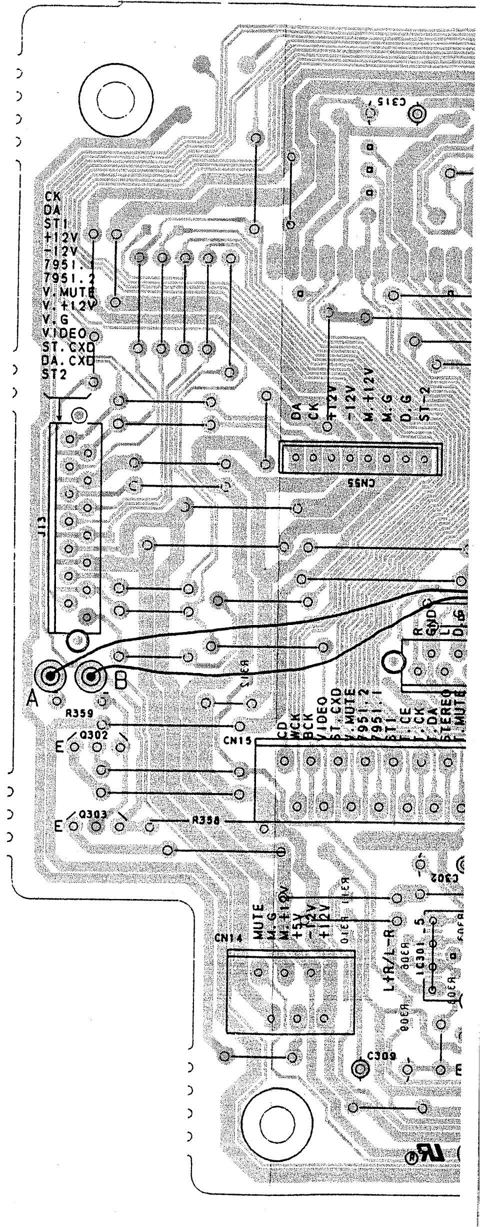
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

VOLUME assembly (AWZ4545)


VOL POSITION SENS
R517
CN16
CMK-140SX
TONE&BALANCE CONT
ANP1591-D
TA8409S
MOTER DRIVER
LED
DOWN
UP
CK
DT5
ST4
ST3
ST2
DC
4066
A
M5220
TC9154AP
IC563
IC562
VR501
R
L
C
SL
SR
D.G
-12V
+12V
SURR - L CH LEVEL
L/R BUFFER AMP
RC4558
IC522
IC523
IC521
IC501
SURR - C CH LEVEL
AWZ
AWK
MUTE
R CH
GND
C CH
L CH
SL CH
SR CH
ST2
D.G
M.G
M.12V
-12V
+12V
CK
DT
ST3
+5V
-5V
R501
R502
R2941
R2942
R2947
R2945
CN18
Q501
IC503
IC562 IC561
IC564
IC522
IC563
IC523

CONNECTION assembly (AWZ43

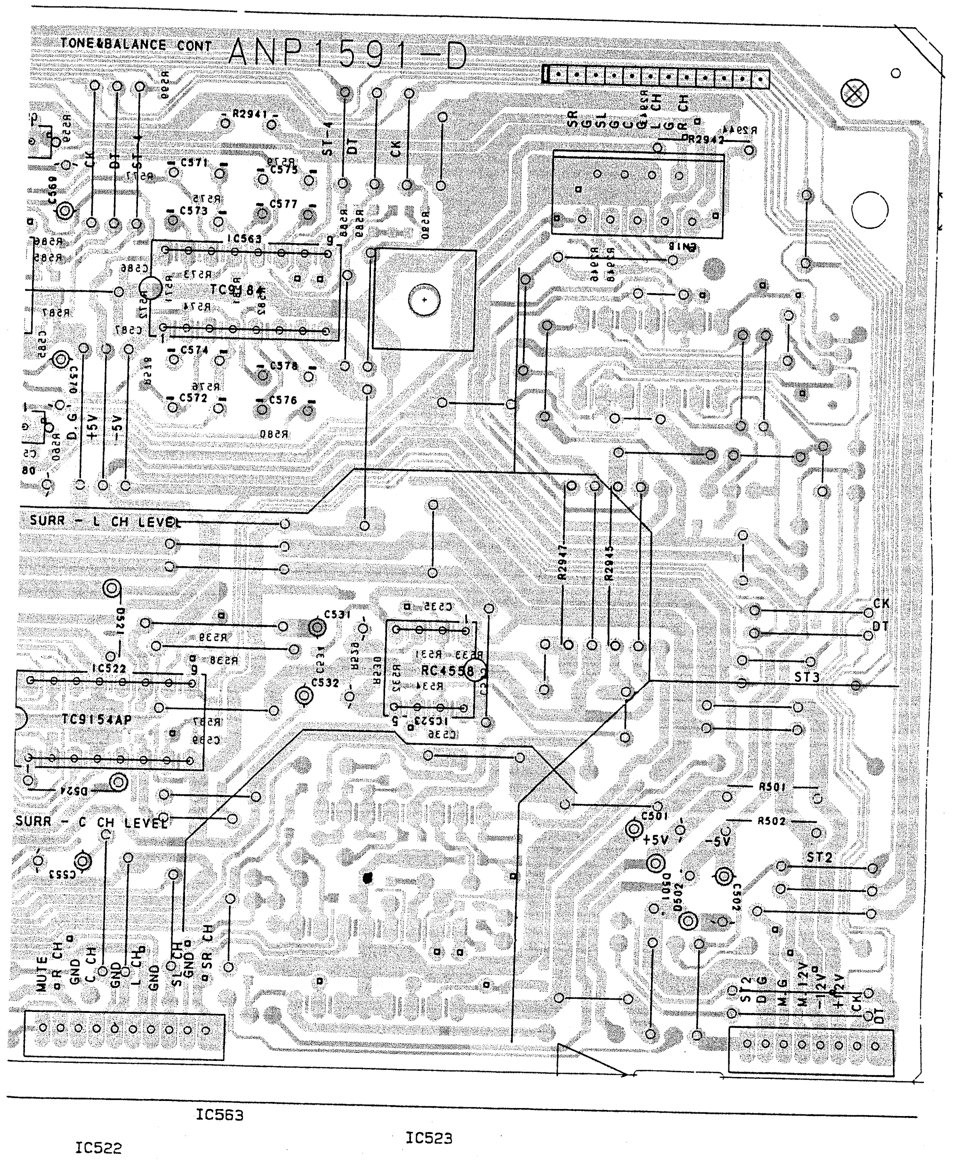

CK
DA
ST1
+12V
-12V
7951.
7951.2
V.MUTE
V.+12V
V.G
VIDEO
ST.CXD
DA.CXD
ST2
J13
CN55
A
B
R359
Q302
Q303
R358
CN15
CN14
MUTE
C309
C315

This PCB connection diagram

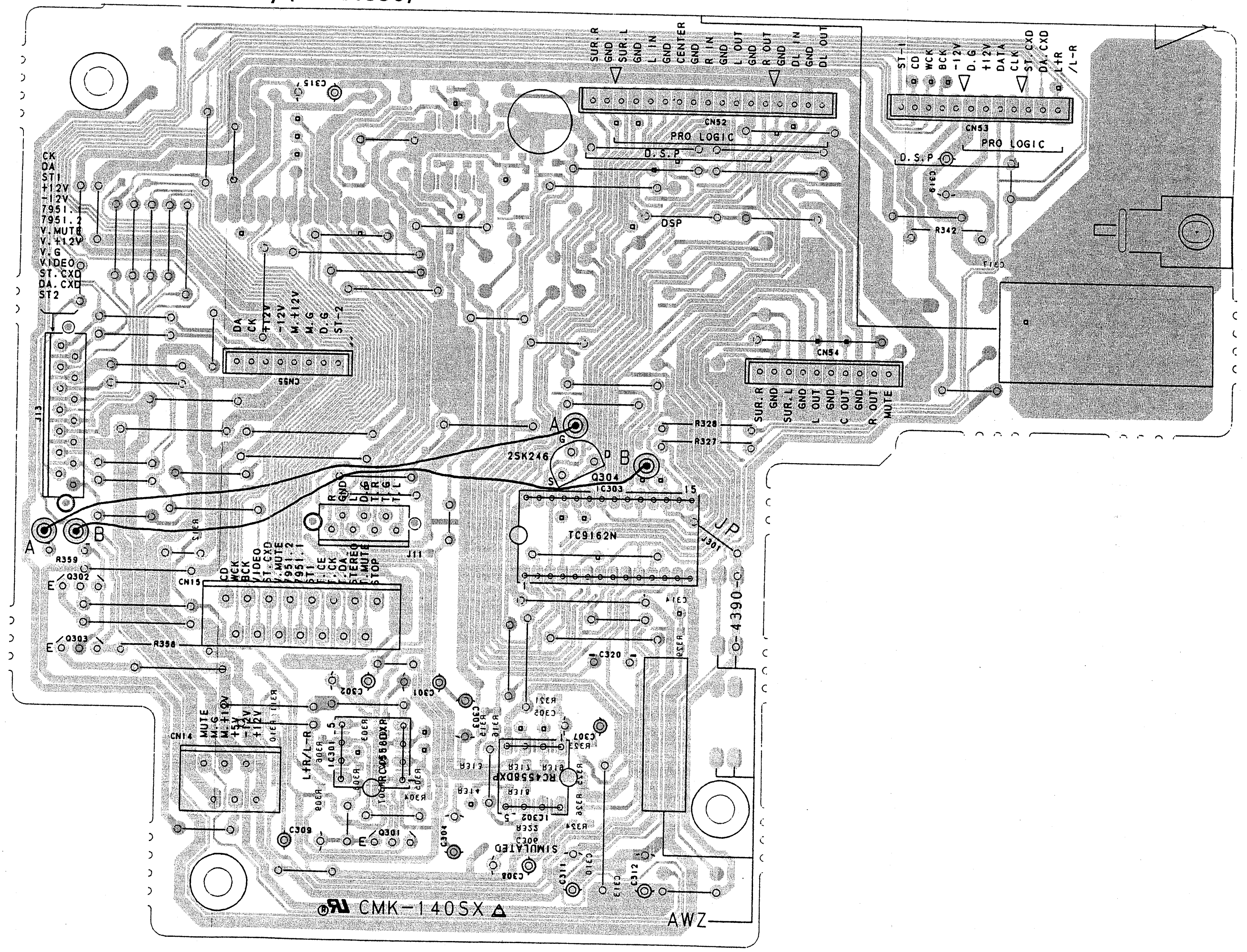
thers

.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

. The capacitor terminal marked with ◎(double circles) shows negatine terminal.
. The diode terminal marked with ◎(double circles) shows cathode side.
. The transistor terminal to which E is affixed shows the emitter.


TONE&BALANCE CONT
ANP1591-D
IC563
TC9184
IC522
TC9154AP
IC523
RC4558
SURR - L CH LEVEL
SURR - C CH LEVEL
ST2
ST3
ST-4
CK
DT
+5V
-5V
D.G
MUTE
R CH
GND
C CH
L CH
SL CH
SR CH
SR
SL
CN18
IC563
IC522
IC523

CONNECTION assembly (AWZ4390)


CMK-140SX
AWZ-4390-C
JP
TC9162N
IC303
2SK246
Q304
A
B
A
B
RC4558DXP
SIMULATED
CN14
CN15
CN52
CN53
CN54
CN55
J11
J13
PRO LOGIC
D.S.P
DSP
SUR.R
GND
SUR.L
L IN
CENTER
R IN
L OUT
R OUT
DL IN
DL OUT
ST-1
CD
WCK
BCK
-12V
D.G
+12V
DATA
CLK
ST.CXD
DA.CXD
L+R
/L-R
C OUT
MUTE
CK
DA
ST1
7951.1
7951.2
V.MUTE
V.+12V
V.G
VIDEO
ST2
M.G
M.+12V
ST-2
L+R/L-R
E

This PCB connection diagram is viewd from the parts mounted side.

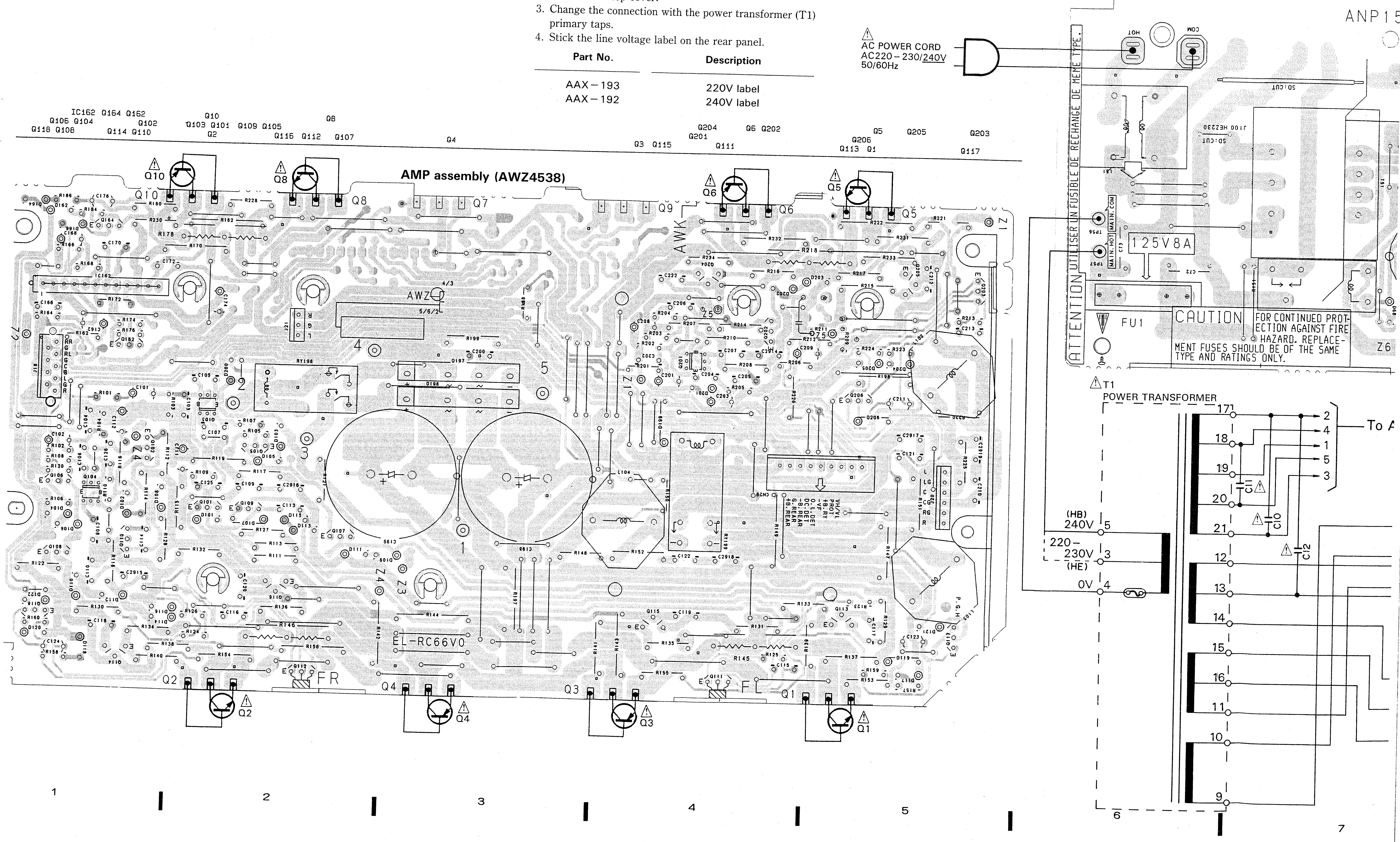
:B connection diagram is viewd from the parts mounted side.

Line Voltage Selection

Line voltage can be changed with the following steps.

1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection with the power transformer (T1) primary taps.
4. Stick the line voltage label on the rear panel.

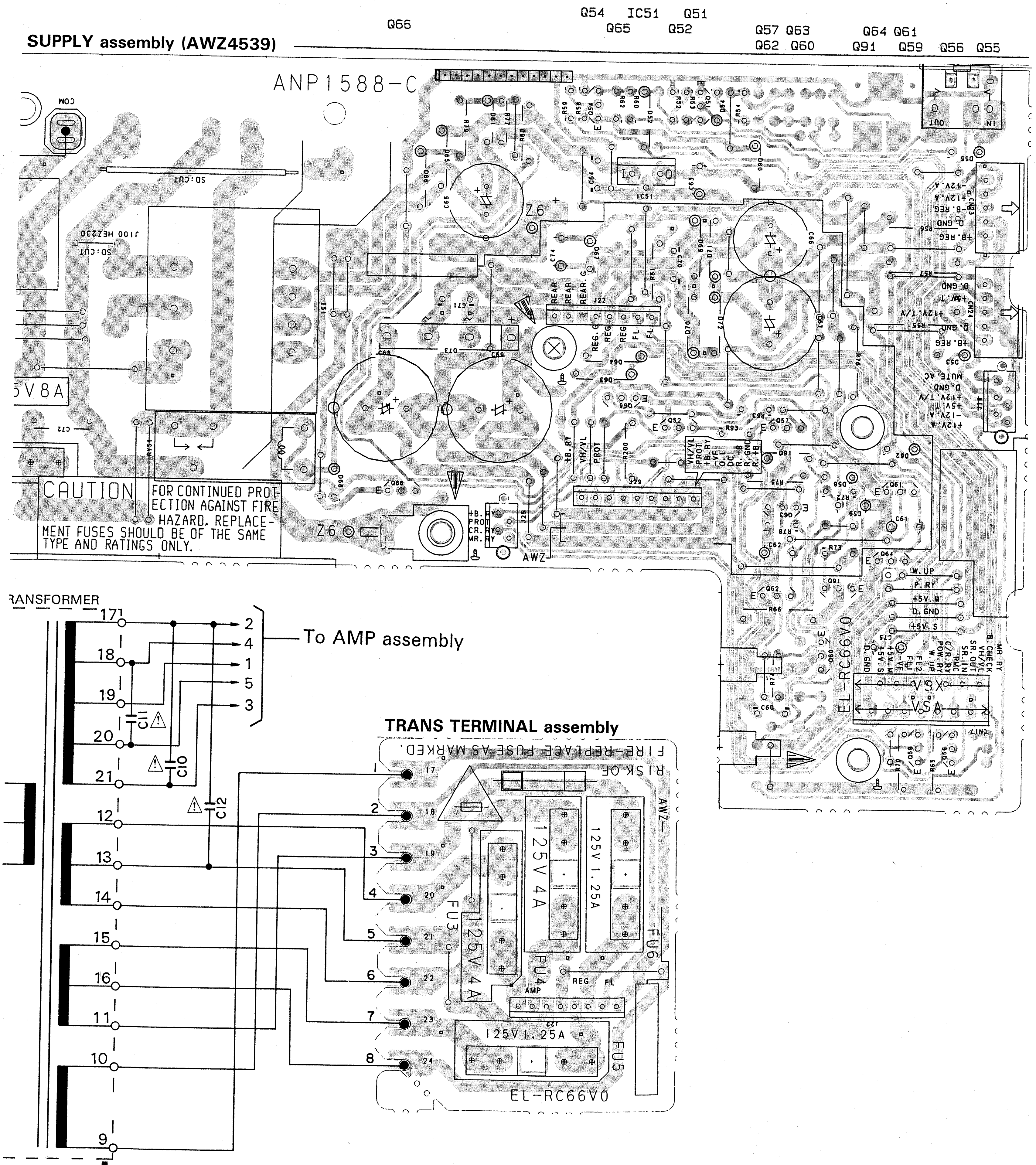
Part No.	Description
AAX−193	220V label
AAX−192	240V label



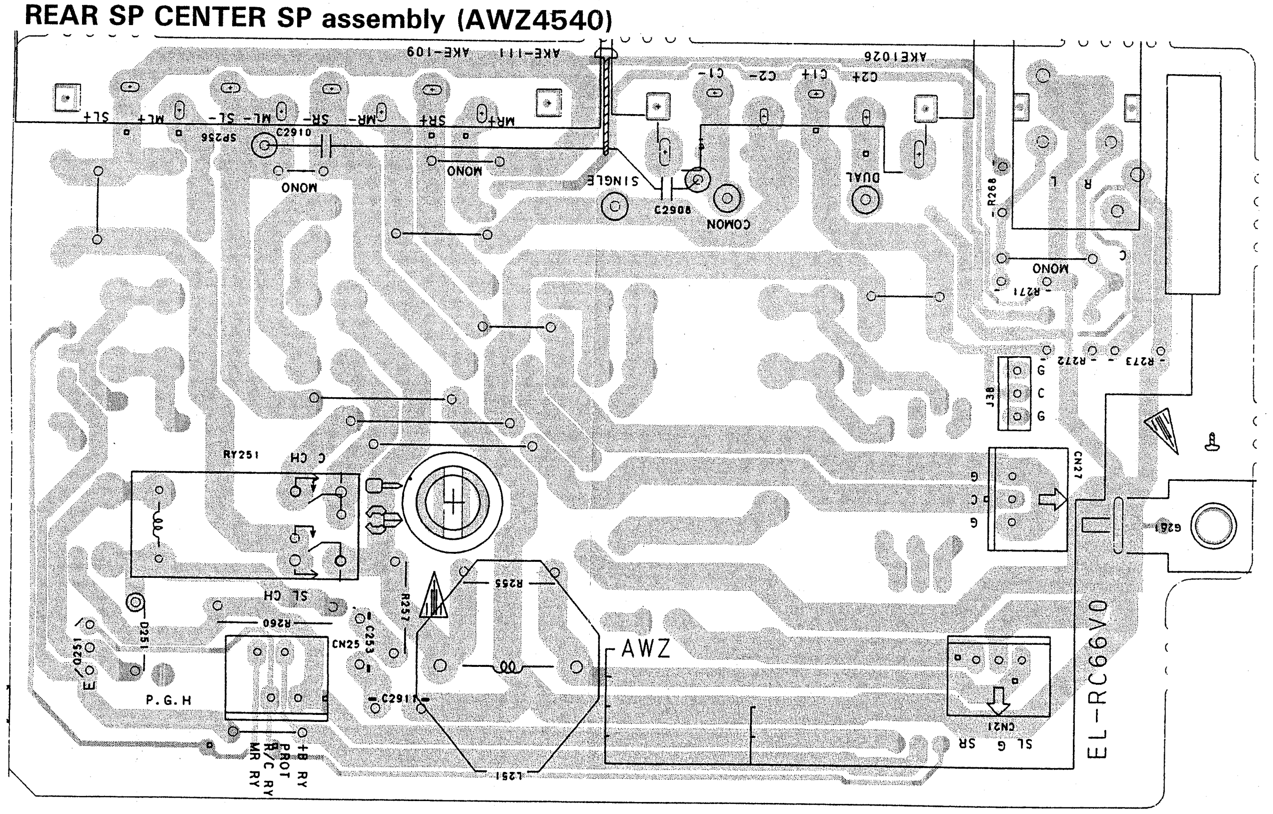
AMP assembly (AWZ4538)
POWER SUPPLY assembly (AWZ4539)
ANP15
AC POWER CORD
AC220−230/240V
50/60Hz
HOT
COM
SD:CUT
J100 HEZ230
TP56
TP57
MAIN.HOT
MAIN.COM
125V8A
FU1
ATTENTION UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.
CAUTION FOR CONTINUED PROTECTION AGAINST FIRE HAZARD. REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
Z6
T1
POWER TRANSFORMER
(HB) 240V 5
220−230V 3
(HE)
0V 4
To A
2
4
1
5
3
C10
C11
C12
17
18
19
20
21
12
13
14
15
16
11
10
9
IC162 Q164 Q162
Q106 Q104
Q118 Q108
Q102
Q114 Q110
Q10
Q103 Q101 Q109 Q105
Q2
Q116 Q112 Q107
Q8
Q4
Q3 Q115
Q204
Q201
Q111
Q6 Q202
Q5
Q206
Q113 Q1
Q205
Q203
Q117
Q10
Q8
Q7
Q9
Q6
Q5
Q2
Q4
Q3
Q1
AWK
AWZ
Z1
Z2
Z3
Z4
Z5
EL-RC66V0
FR
FL
P.G.H
VH/VL
PROT
+B.RY
+VF
O.L.DET
DC.DET
G.REAR
+B.REAR
RY198
C198
C199
IC162
J18
J21
L104
1
2
3
4
5
6
7

SUPPLY assembly (AWZ4539)

TRANS TERMINAL assembly


Q66
Q54 IC51 Q51
Q65 Q52
Q57 Q63
Q62 Q60
Q64 Q61
Q91 Q59 Q56 Q55
ANP1588-C
COM
SD:CUT
J100 HE2230
Z6
IC51
5V8A
C72
R151
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
AWZ
+B.RY
PROT
CR.RY
MR.RY
J25
J29
J22
REAR
REAR
REAR.G
REG.G
REG
REG
FL
FL
VH/VL
PROT
+B.RY
R.GND
R.+B
+12V.A
-12V.A
+5V.T
+12V.T/V
D.GND
MUTE.AC
+B.REG
D.GND
+12V.T/V
+5V.T
D.GND
+B.REG
D.GND
-B.REG
+12V.A
-12V.A
IN
OUT
W.UP
P.RY
+5V.M
D.GND
+5V.S
MR.RY
B.CHECK
VH/VL
SR.OUT
SR.IN
RMC
C/R.RY
POW.RY
W.UP
FL2
FL1
-VF
+5V.M
+5V.S
D.GND
VSX
VSA
EL-RC66V0
TRANSFORMER
17
18
19
20
21
12
13
14
15
16
11
10
9
C11
C10
C12
To AMP assembly
2
4
1
5
3
RISK OF FIRE-REPLACE FUSE AS MARKED.
1
2
3
4
5
6
7
8
FU3 125V 4A
FU4 125V 4A
FU6 125V 1.25A
FU5 125V 1.25A
AMP
REG
FL
AWZ
EL-RC66V0

REAR SP CENTER SP assembly (AWZ4540)


AKE1026
AKE-111
AKE-109
C2+
C1+
C2-
C1-
SL+
ML+
SL-
ML-
SR-
MR-
SR+
MR+
SP256
C2910
MONO
MONO
SINGLE
C2908
COMON
DUAL
R268
R
L
MONO
R271
C
R272
R273
J38
G
C
G
CN27
G251
RY251
C CH
SL CH
R237
R255
C253
CN25
R260
D251
D0251
P.G.H
C2911
+B RY
PROT
R/C RY
MR RY
L251
AWZ
CN21
SL G SR
EL-RC66V0

NOTE

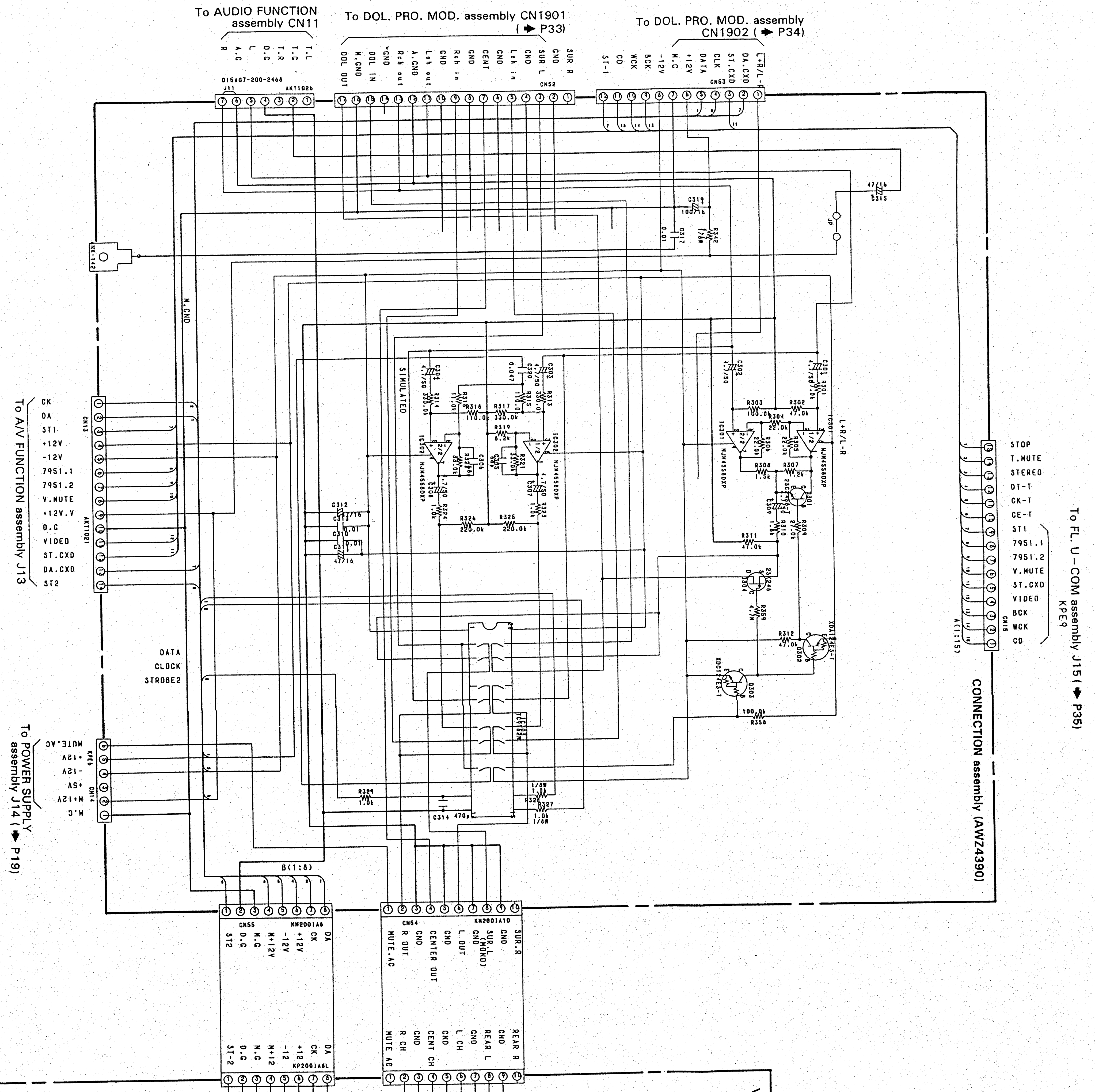
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

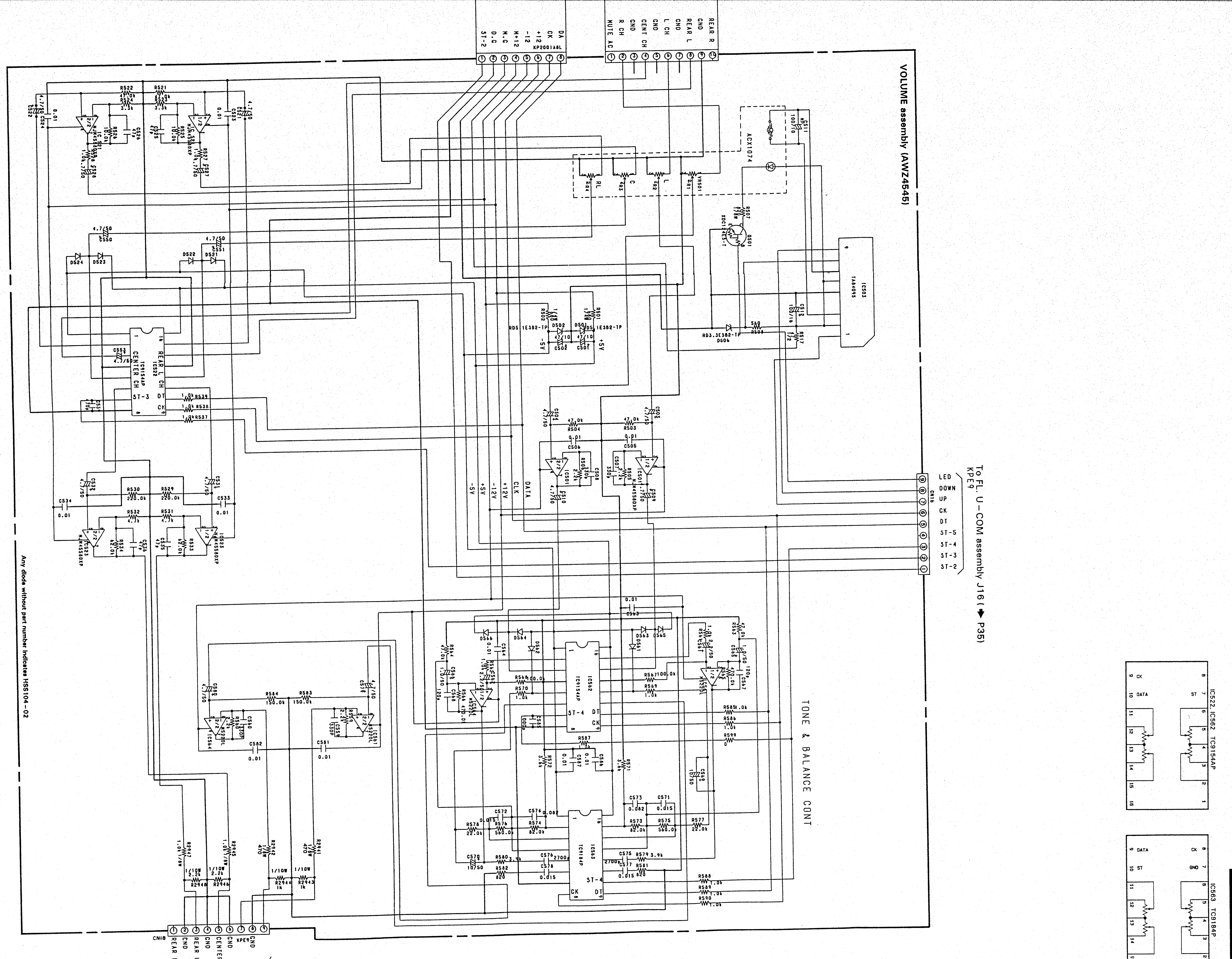
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	E or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

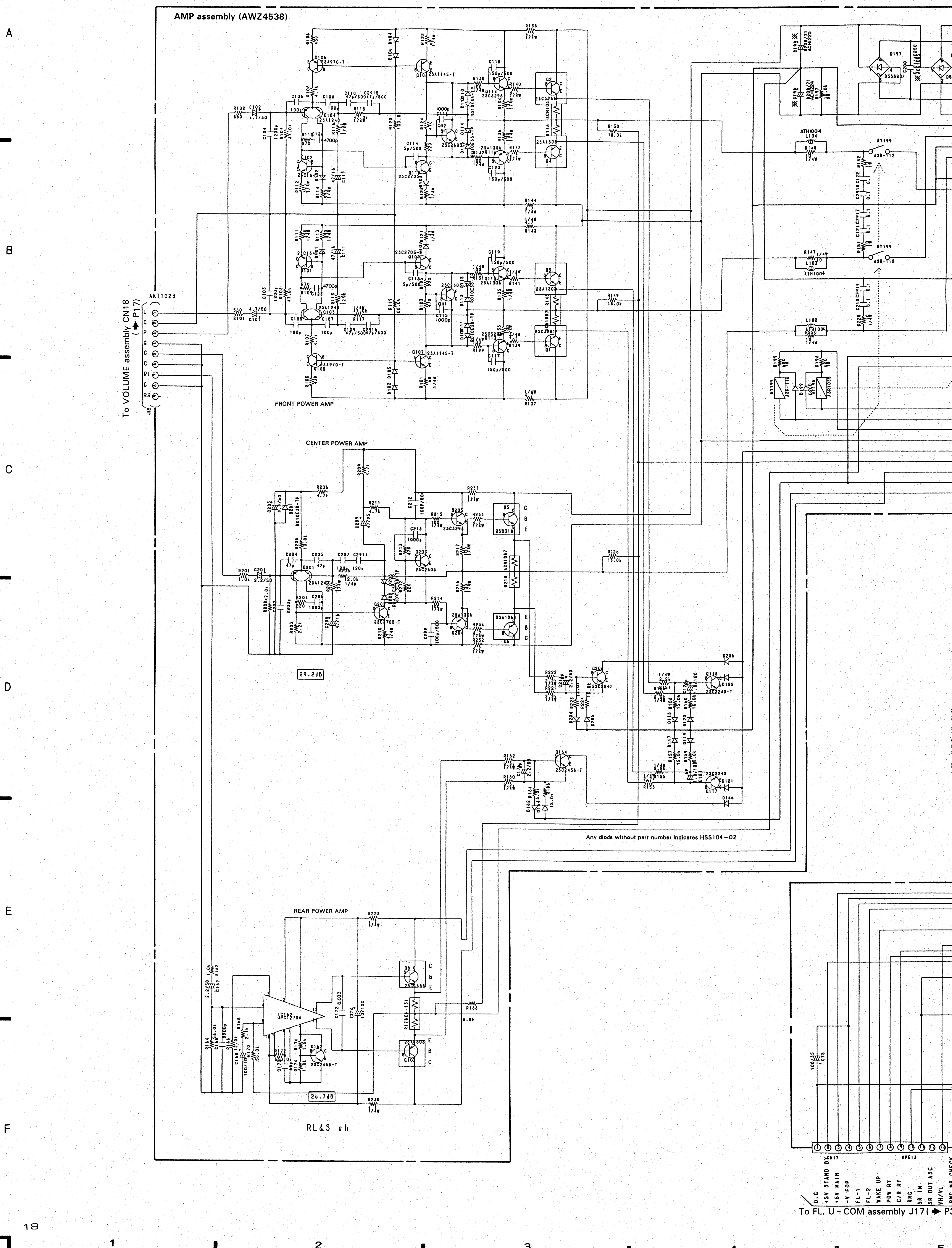
3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

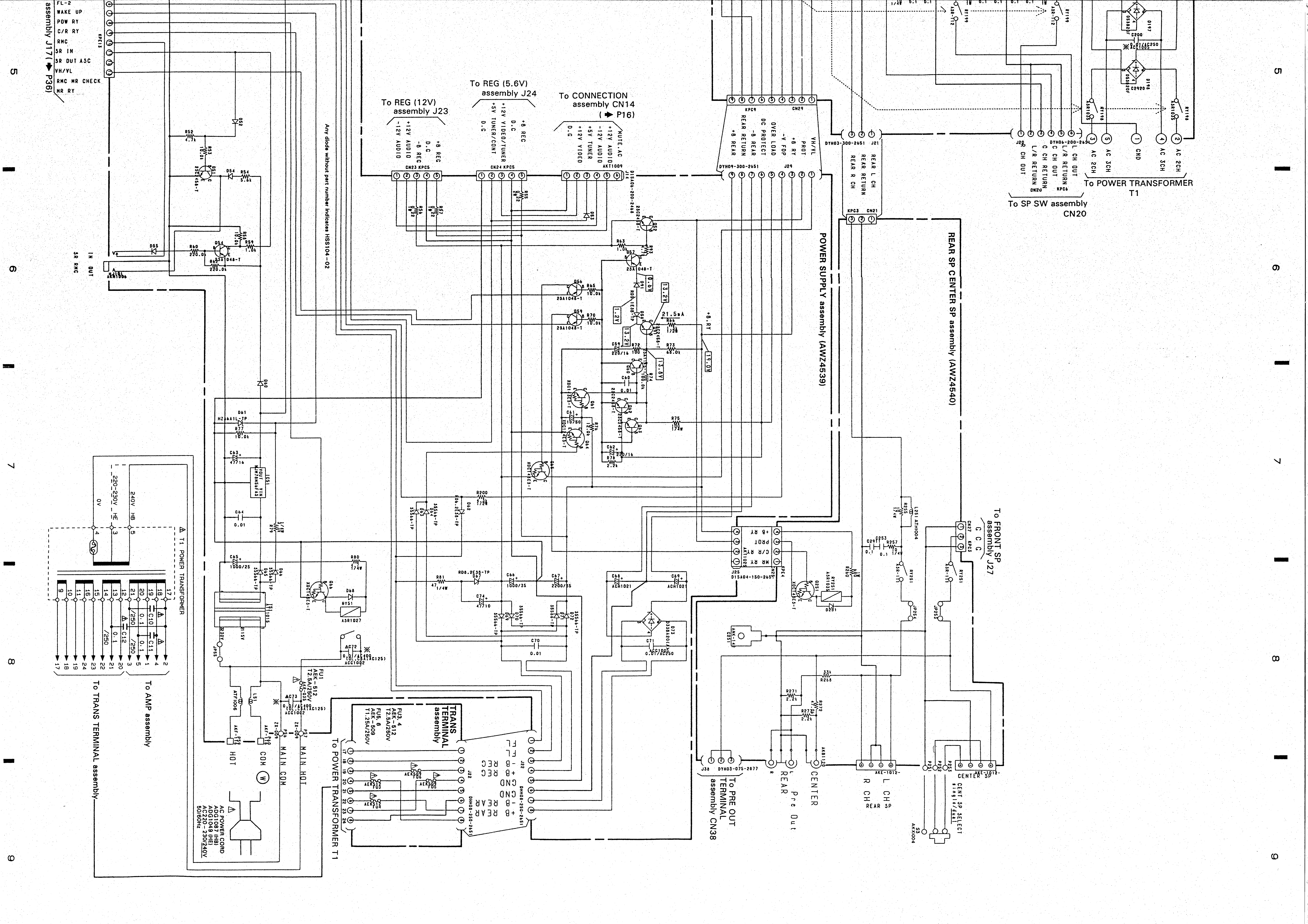

To AUDIO FUNCTION assembly CN11
To DOL. PRO. MOD. assembly CN1901 (➡ P33)
To DOL. PRO. MOD. assembly CN1902 (➡ P34)
T.L
T.G
T.R
D.G
L
A.G
R
DOL OUT
M.GND
DOL IN
GND
Rch out
A.GND
Lch out
GND
Rch in
GND
CENT
GND
Lch in
GND
SUR L
GND
SUR R
ST-1
CD
WCK
BCK
-12V
M.G
+12V
DATA
CLK
ST.CXD
DA.CXD
L+R/L-R
J11
AKT1026
CN52
CN53
To A/V FUNCTION assembly J13
CK
DA
ST1
+12V
-12V
7951.1
7951.2
V.MUTE
+12V.V
D.G
VIDEO
ST.CXD
DA.CXD
ST2
CN13
AKT1021
M.GND
DATA
CLOCK
STROBE2
To POWER SUPPLY assembly J14 (➡ P19)
MUTE.AC
+12V
-12V
+5V
M+12V
M.G
CN14
STOP
T.MUTE
STEREO
DT-T
CK-T
CE-T
ST1
7951.1
7951.2
V.MUTE
ST.CXD
VIDEO
BCK
WCK
CD
CN15
To FL U-COM assembly J15 (➡ P35)
KPE9
CONNECTION assembly (AWZ4390)
STIMULATED
NJM4556DXP
IC301
IC302
R303
R302
R304
R306
R307
R311
R312
R313
R317
R319
R325
R326
R329
R358
R359
C312
C314 470p
C317
C319
JP
B(1:8)
CN55
KN2001A8
DA
CK
+12V
-12V
M+12V
M.G
D.G
ST2
KP2001A8L
CN54
KN2001A10
SUR.R
GND
SUR.L (MONO)
GND
L OUT
GND
CENTER OUT
GND
R OUT
MUTE.AC
REAR R
GND
REAR L
GND
L CH
GND
CENT CH
GND
R CH
MUTE AC
F
E
D
C
B
A
1
2
3
4


VOLUME assembly (AWZ4545)
To FL. U-COM assembly J16 (→ P35)
KPE9
CN16
LED
DOWN
UP
CK
DT
ST-5
ST-4
ST-3
ST-2
TONE & BALANCE CONT
KP2001A8L
DA
CK
+12
-12
M+12
M.C
D.G
ST-2
REAR R
GND
REAR L
GND
L CH
GND
CENT CH
GND
R CH
MUTE AC
ACX1074
VR501
IC503
TA8409S
IC522
TC9154AP
REAR L CH
CENTER CH
ST-3
IC562
TC9154AP
ST-4
IC563
TC9184P
IC501
NJM4558DXP
IC521
IC523
IC561
IC564
NJM4558DXP
Q501
XDC124ES-T
D506
RD3.3ESB2-TP
D501
D502
RD5.1ESB2-TP
+5V
-5V
+12V
-12V
CLK
DATA
CN18
KPE9
REAR R
GND
REAR L
GND
CENTER
GND
GND
IC522, IC562 TC9154AP
IC563 TC9184P
CK
DATA
ST
GND
5
6
7
8
9

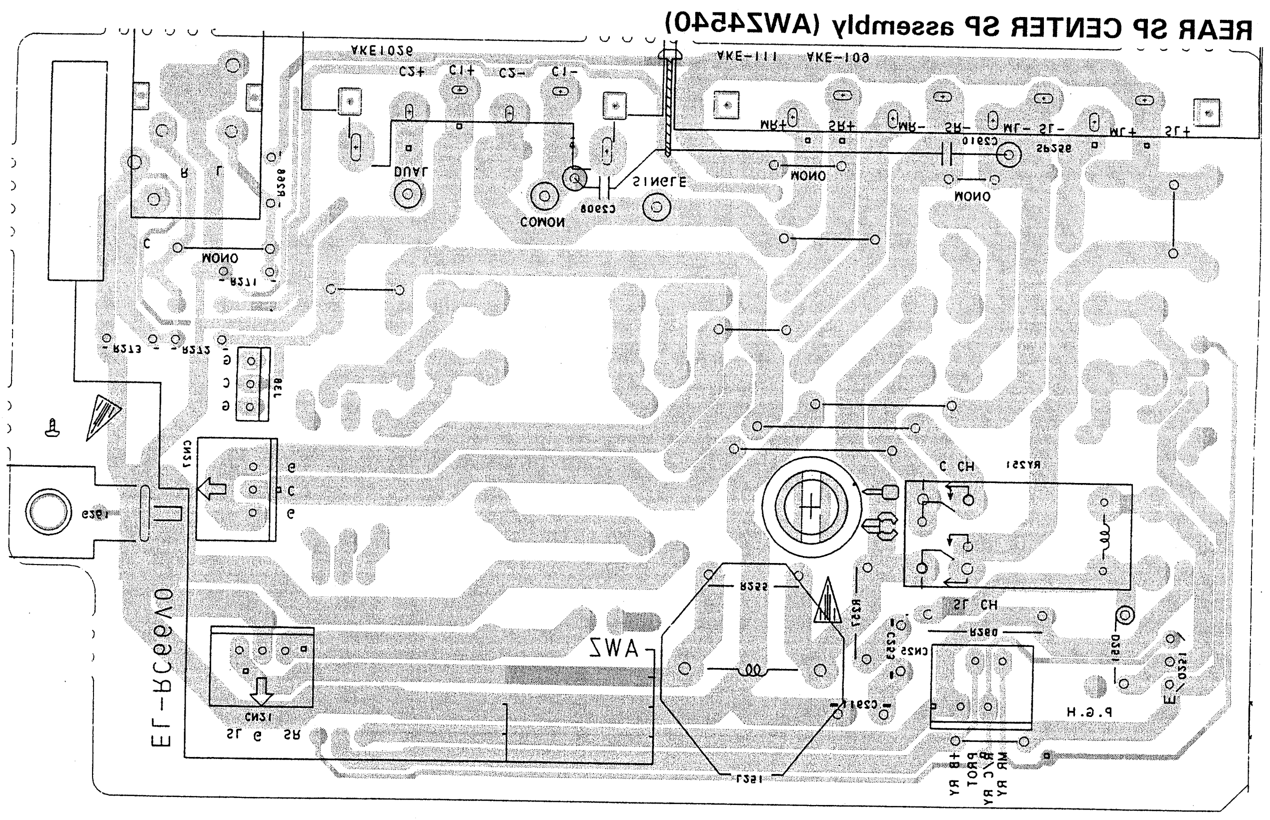
Any diode without part number indicates HSS104-02

3.2 AMP ASSEMBLY, REAR SP CENTER SP ASSEMBLY, POWER SUPPLY ASSEMBLY AND TRANS TERMINAL ASSEMBLY


AMP assembly (AWZ4538)
To VOLUME assembly CN18 (➡ P17)
AKT1023
J18
L
G
P
G
C
G
RL
G
RR
FRONT POWER AMP
CENTER POWER AMP
29.2dB
REAR POWER AMP
26.7dB
RL&S ch
IC162 UPC1270H
Any diode without part number indicates HSS104-02
ATH1004
L104
L103
L102
RY199
A3R-1T2
A3R1035
D197
DS3B20F
ACH224
ACH225
C199
C198
C200
CN17
KPE13
D.G
+5V STAND BY
+5V MAIN
-V FDP
FL-1
FL-2
WAKE UP
POW RY
C/R RY
RMC
SR IN
SR OUT ASC
VH/VL
To FL. U-COM assembly J17(➡ P3
A
B
C
D
E
F
1
2
3
4
5

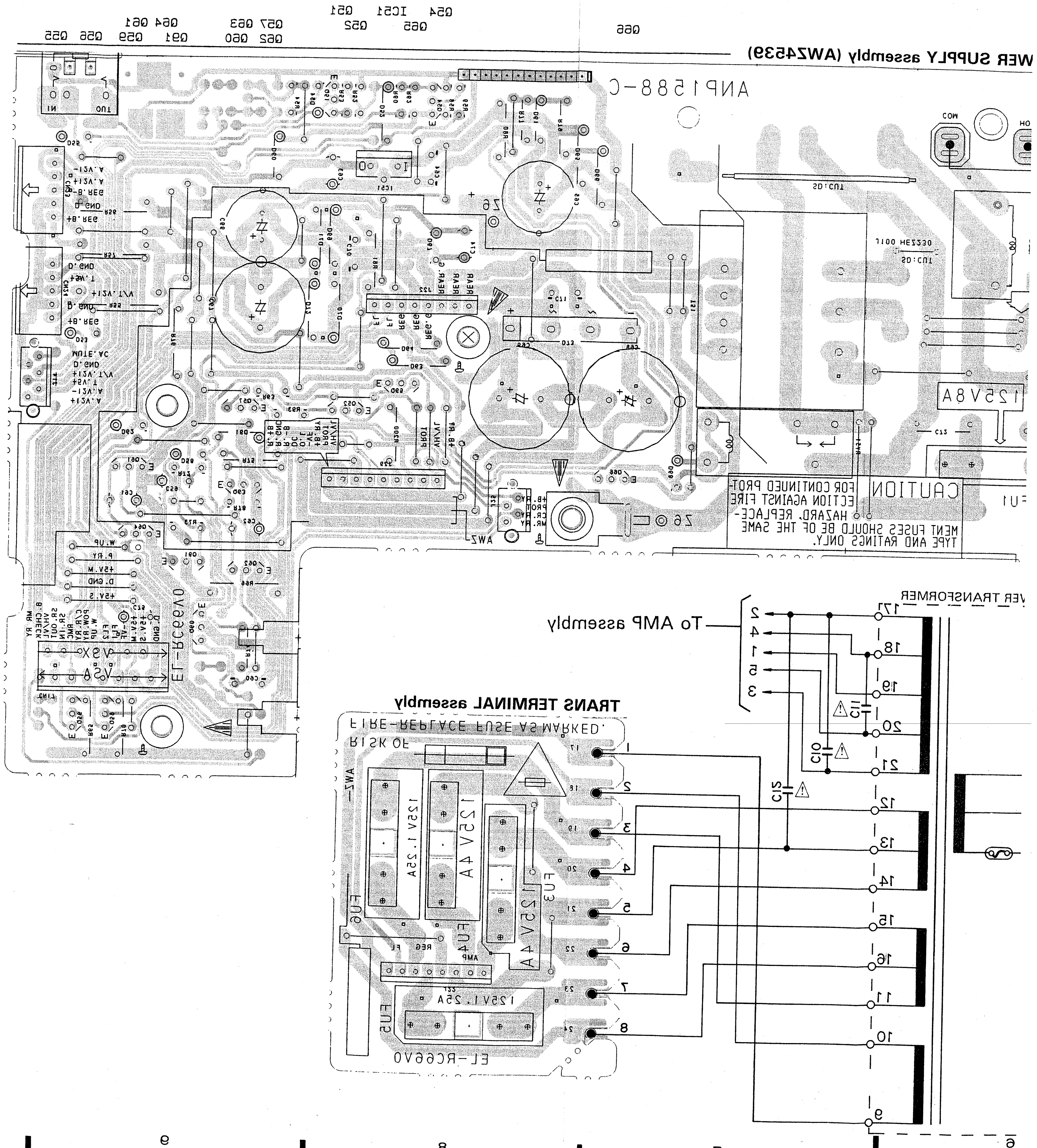

To REG (12V) assembly J23
To REG (5.6V) assembly J24
To CONNECTION assembly CN14 (➡ P16)
assembly J17 (➡ P36)
FL-2
WAKE UP
POW RY
C/R RY
RMC
SR IN
SR OUT ASC
VH/VL
RMC MR CHECK
MR RY
Any diode without part number indicates HSS104-02
POWER SUPPLY assembly (AWZ4539)
REAR SP CENTER SP assembly (AWZ4540)
To SP SW assembly CN20
To POWER TRANSFORMER T1
To FRONT SP assembly J27
T1 POWER TRANSFORMER
To AMP assembly
To TRANS TERMINAL assembly
TRANS TERMINAL assembly
To POWER TRANSFORMER T1
To PRE OUT TERMINAL assembly CN38
AC POWER CORD ADG1087 (HB) ADG1049 (HE) AC220-230/240V 50/60Hz
HOT
COM
MAIN COM
MAIN HOT
FU1 AEK-512 T2.5A/250V
FU3,4 AEK-512 T2.5A/250V
FU6,8 AEK-509 T1.25A/250V
240V HB
220-230V HE
0V
CENTER
REAR
Pre Out
L CH
R CH
REAR SP
CENTER SP
CENT SP SELECT single/dual
S3 ASX1004
AC 2CH
AC 3CH
GND
21.5mA
13.2V
0.6V
1.2V
13.8V
13.0V
+B RY
PROT
C/R RY
MR RY
5
6
7
8
9

REAR SP CENTER SP assembly (AWZ4540)


MONO
SINGLE
DUAL
COMMON
C CH
SL CH
AWZ
EL-RC6690
P.G.H
CN31
CN33
RY251

POWER SUPPLY assembly (AWZ4539)

TRANS TERMINAL assembly


ANP1588-C
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD. REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
RISK OF FIRE-REPLACE FUSE AS MARKED.
125V8A
125V1.25A
125V4A
EL-RC6690
AWZ
To AMP assembly
POWER TRANSFORMER
C10
C11
C15

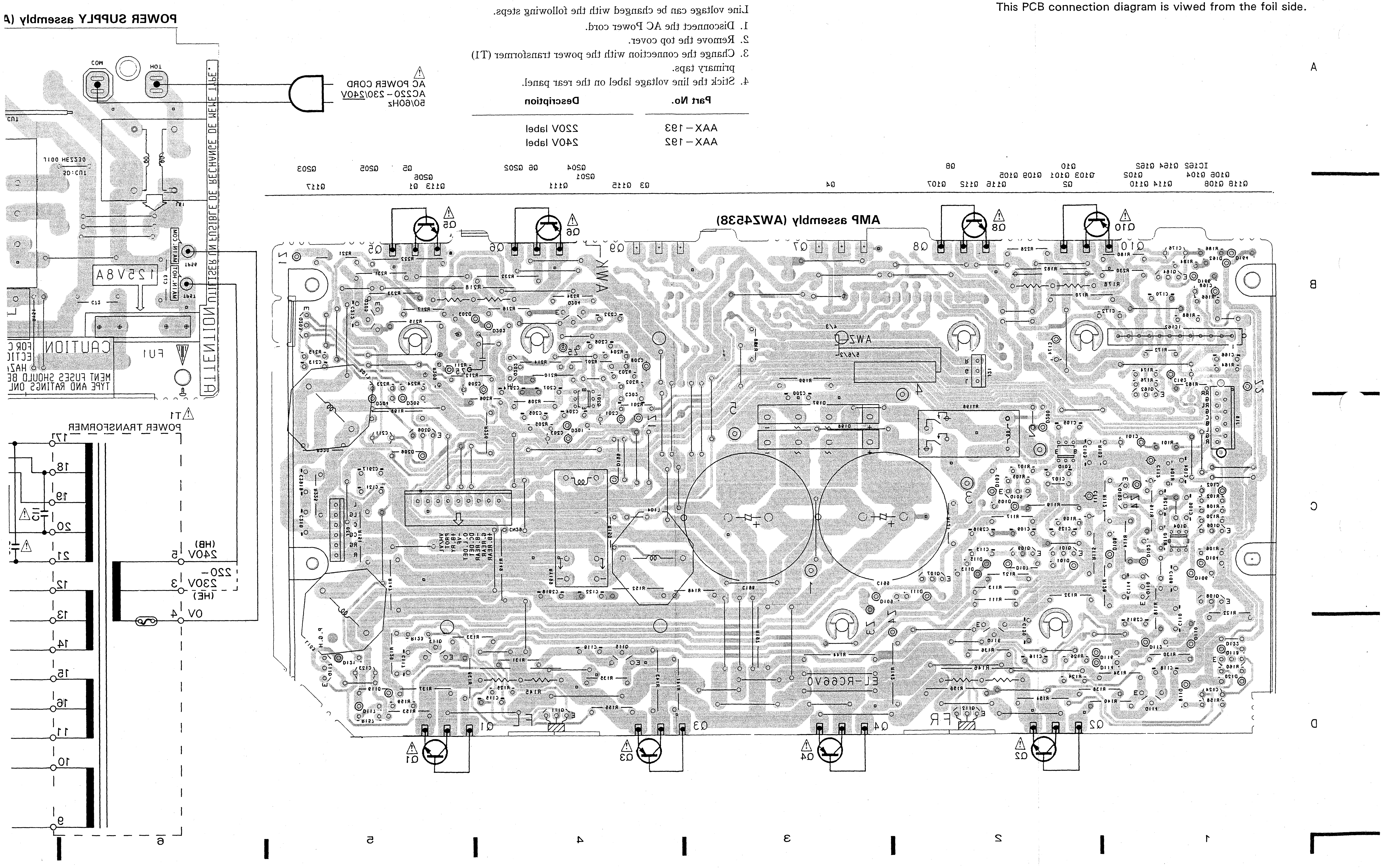
This PCB connection diagram is viwed from the foil side.

Line Voltage Selection

Line voltage can be changed with the following steps.

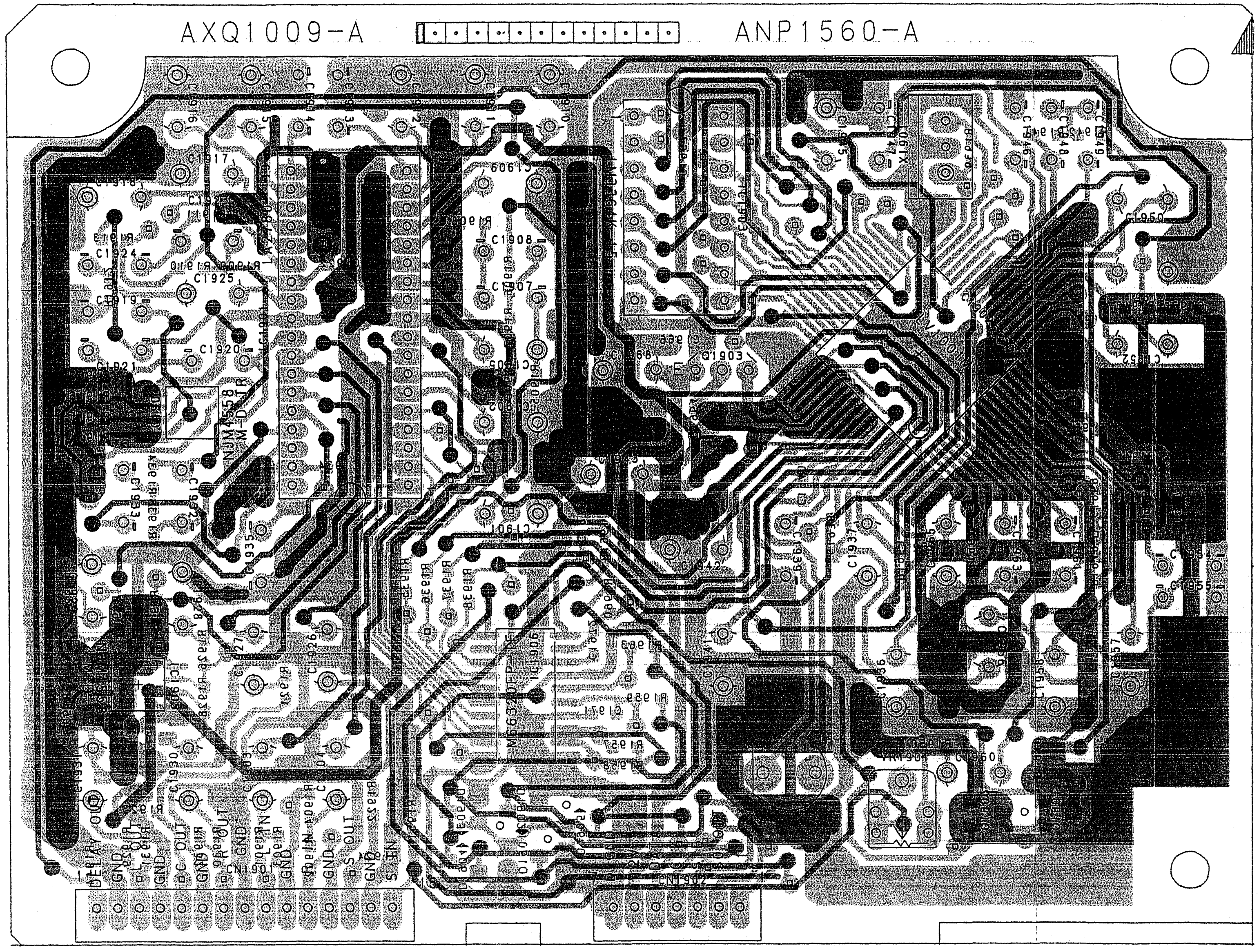
1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection with the power transformer (T1) primary taps.
4. Stick the line voltage label on the rear panel.

Part No.	Description
AAX-193	220V label
AAX-192	240V label



POWER SUPPLY assembly (A
AC POWER CORD
AC220-230/240V
50/60Hz
CAUTION
FU1
T1
POWER TRANSFORMER
240V (HB)
220-230V (HE)
0V
AMP assembly (AWZ4538)
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
A
B
C
D
1
2
3
4
5
6

DOL. PRO. MOD. assembly (AXQ1009)


AXQ1009-A
ANP1560-A
C1917
C1924
C1925
C1919
C1920
C1921
C1908
C1907
Q1903
C1950
C1952
C1955
NJM4558
DELAY
GND
OUT

This PCB connection diagram is viewd from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E 0504	E or E	Transistor
0215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

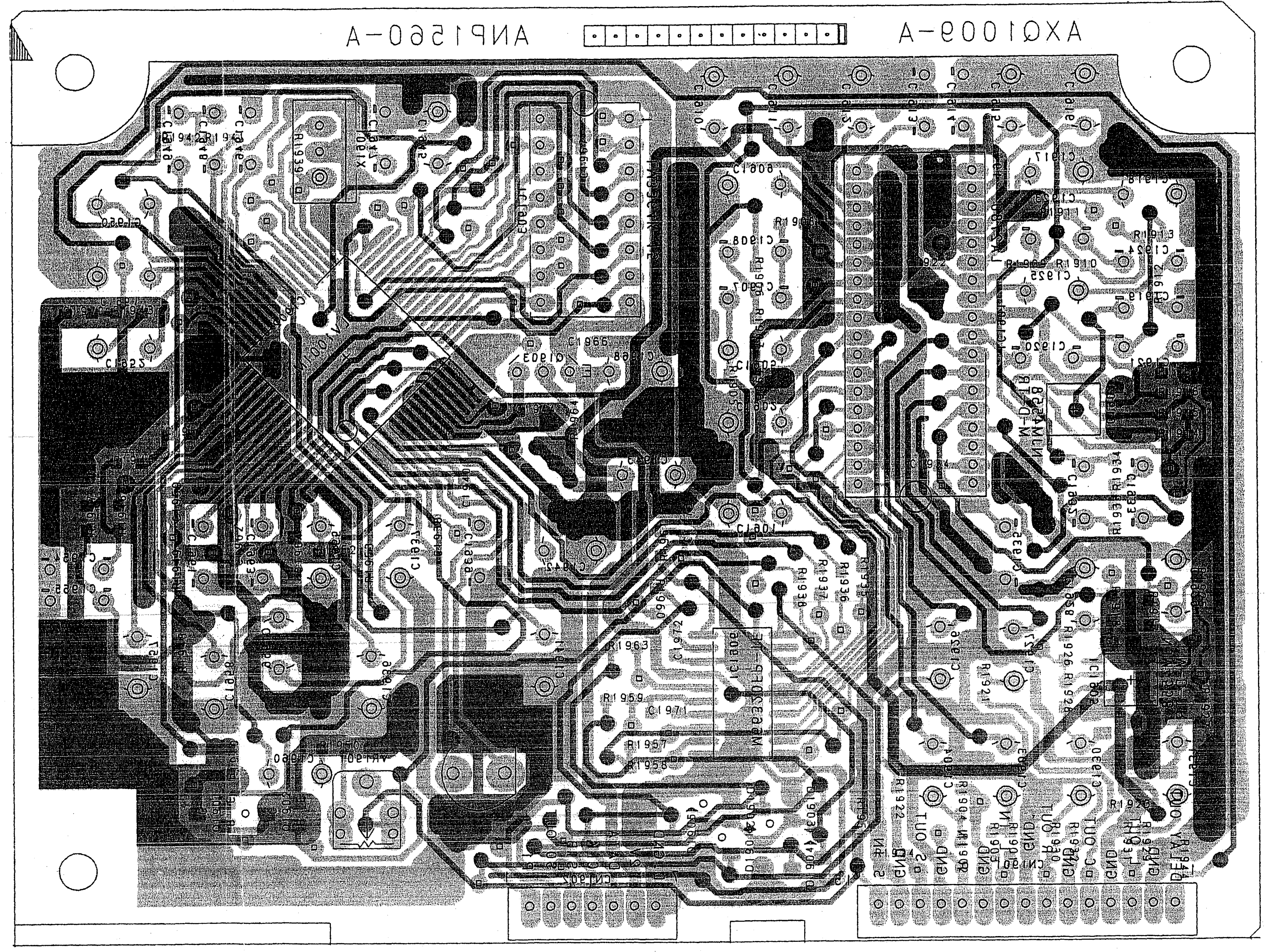
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

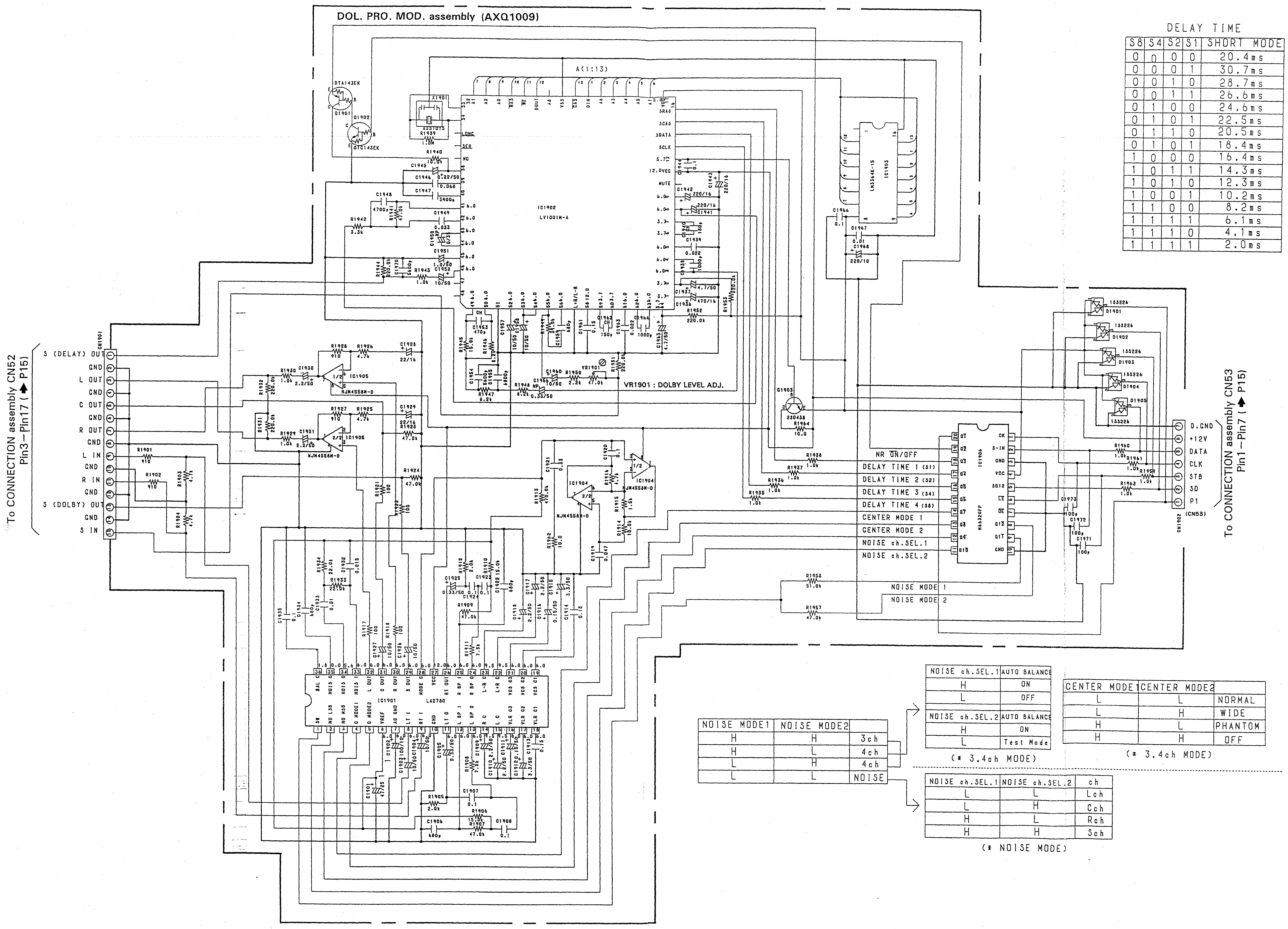
3. The capacitor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

3.3 DOL. PRO. MOD. ASSEMBLY

DOL. PRO. MOD. assembly (AXQ1009)


ANP1560-A
AXQ1009-A

This PCB connection diagram is viwed from the foil side.


DOL. PRO. MOD. assembly (AXQ1009)
IC1902 LY1001N-A
IC1903 LN3364K-15
IC1901 LA2780
IC1906 M66320FP
IC1904 NJM4558N-D
IC1905 NJM4558N-D
VR1901 : DOLBY LEVEL ADJ.
X1901
Q1901 DTA143EK
Q1902 DTC143EK
Q1903 2SD438
D1901 1SS226
D1902 1SS226
D1903 1SS226
D1904 1SS226
D1905 1SS226
CN1901
S (DELAY) OUT
GND
L OUT
GND
C OUT
GND
R OUT
GND
L IN
GND
R IN
GND
S (DOLBY) OUT
GND
S IN
To CONNECTION assembly CN52 Pin3 – Pin17 (➡ P15)
CN1902
D.GND
+12V
DATA
CLK
STB
SD
P1
(CN53)
To CONNECTION assembly CN53 Pin1 – Pin7 (➡ P15)
NR ON/OFF
DELAY TIME 1 (S1)
DELAY TIME 2 (S2)
DELAY TIME 3 (S4)
DELAY TIME 4 (S8)
CENTER MODE 1
CENTER MODE 2
NOISE ch.SEL.1
NOISE ch.SEL.2
NOISE MODE 1
NOISE MODE 2
A(1:13)

DELAY TIME

S8	S4	S2	S1	SHORT MODE
0	0	0	0	20.4ms
0	0	0	1	30.7ms
0	0	1	0	28.7ms
0	0	1	1	26.6ms
0	1	0	0	24.6ms
0	1	0	1	22.5ms
0	1	1	0	20.5ms
0	1	0	1	18.4ms
1	0	0	0	16.4ms
1	0	1	1	14.3ms
1	0	1	0	12.3ms
1	0	0	1	10.2ms
1	1	0	0	8.2ms
1	1	1	1	6.1ms
1	1	1	0	4.1ms
1	1	1	1	2.0ms

NOISE MODE1	NOISE MODE2	
H	H	3ch
H	L	4ch
L	H	4ch
L	L	NOISE

NOISE ch.SEL.1	AUTO BALANCE
H	ON
L	OFF
NOISE ch.SEL.2	AUTO BALANCE
H	ON
L	Test Mode

(* 3,4ch MODE)

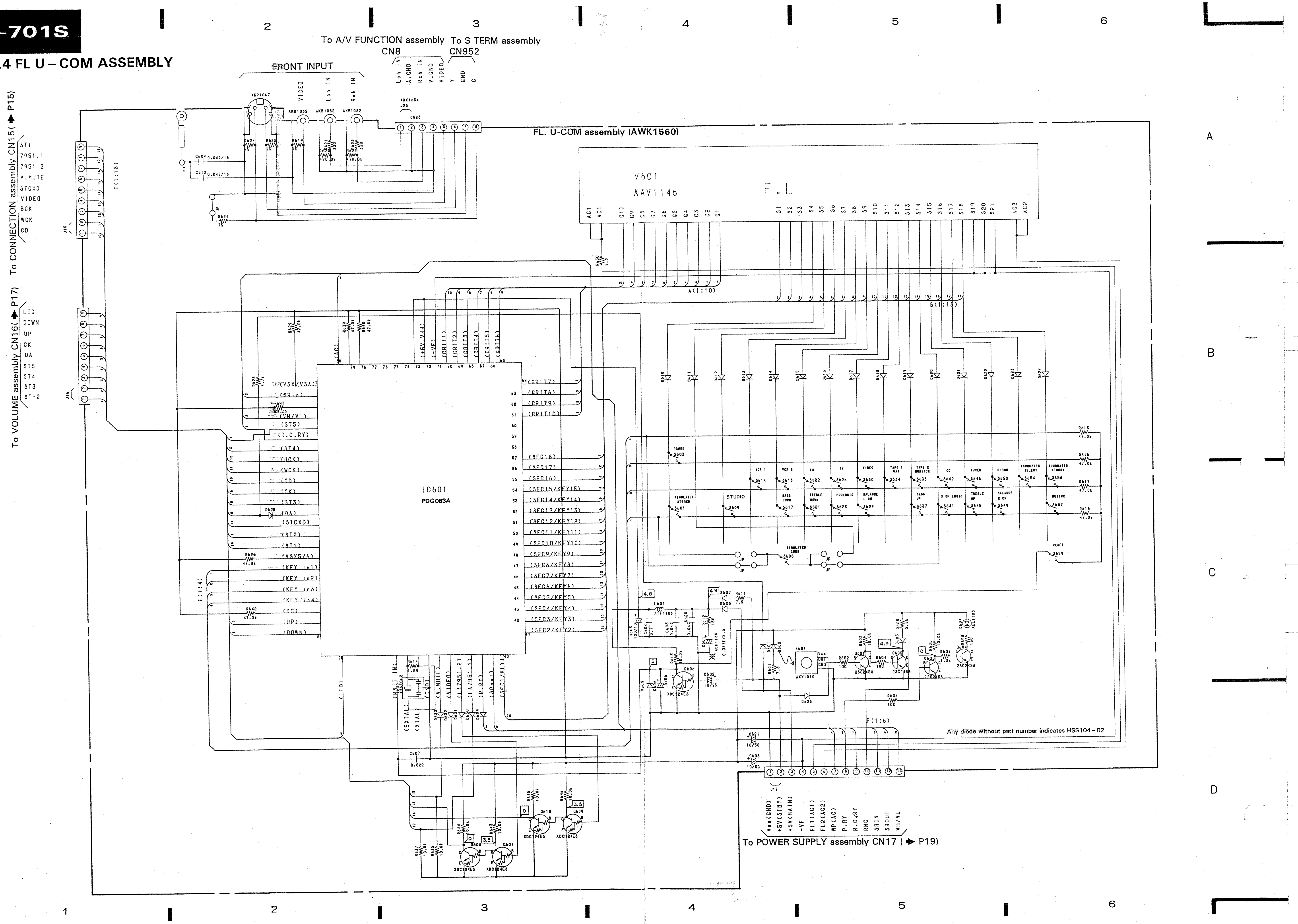
CENTER MODE1	CENTER MODE2	
L	L	NORMAL
L	H	WIDE
H	L	PHANTOM
H	H	OFF

(* 3,4ch MODE)

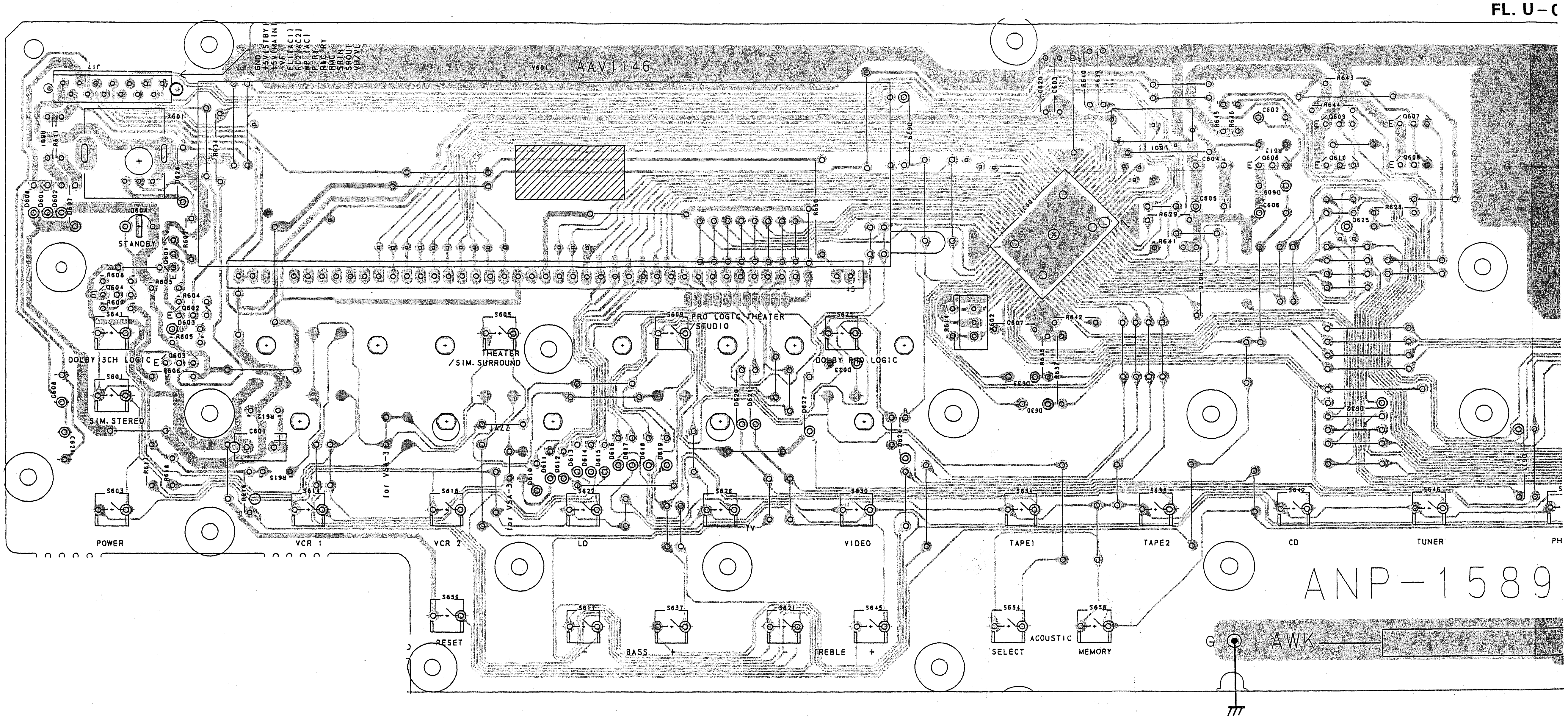
NOISE ch.SEL.1	NOISE ch.SEL.2	ch
L	L	Lch
L	H	Cch
H	L	Rch
H	H	Sch

(* NOISE MODE)

3.4 FL U－COM ASSEMBLY

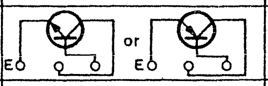
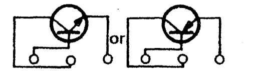
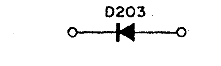
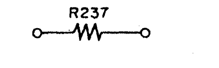
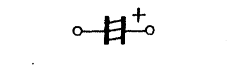
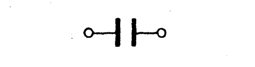

To A/V FUNCTION assembly
CN8
To S TERM assembly
CN952
FRONT INPUT
VIDEO
Lch IN
Rch IN
AKP1067
AKB1082
Lch IN
A.GND
Rch IN
V.GND
VIDEO
Y
GND
C
ADX1654
J28
CN28
FL. U-COM assembly (AWK1560)
V601
AAV1146
F.L
To CONNECTION assembly CN15 (→ P15)
ST1
7951.1
7951.2
V.MUTE
STCXD
VIDEO
BCK
WCK
CD
J15
C(1:18)
To VOLUME assembly CN16 (→ P17)
LED
DOWN
UP
CK
DA
ST5
ST4
ST3
ST-2
J16
IC601
PDG083A
A(1:10)
B(1:18)
E(1:4)
F(1:6)
POWER
VCR 1
VCR 2
LD
TV
VIDEO
TAPE 1 DAT
TAPE 2 MONITOR
CD
TUNER
PHONO
ACCOUSTIC SELECT
ACCOUSTIC MEMORY
SIMULATED STEREO
STUDIO
BASS DOWN
TREBLE DOWN
PROLOGIC
BALANCE L CH
BASS UP
3 CH LOGIC
TREBLE UP
BALANCE R CH
MUTING
SIMULATED SURR
RESET
X601
AXX1010
J17
Vss(GND)
+5V(STBY)
+5V(MAIN)
-VF
FL1(AC1)
FL2(AC2)
WP(AC)
P.RY
R.C.RY
RMC
SRIN
SROUT
VH/VL
To POWER SUPPLY assembly CN17 (→ P19)
Any diode without part number indicates HSS104－02

FL. U-


AAV1146
V601
J17
X601
GND
+5V(STBY)
+5V(MAIN)
-VF
FL1(AC1)
FL2(AC2)
WP(AC)
P.RY
RMC
SRIN
SROUT
VH/VL
IC601
STANDBY
DOLBY 3CH LOGIC
SIM. STEREO
THEATER
/SIM. SURROUND
PRO LOGIC THEATER
/STUDIO
DOLBY PRO LOGIC
JAZZ
for VSA-3
TV
POWER
VCR 1
VCR 2
LD
VIDEO
TAPE1
TAPE2
CD
TUNER
PH
RESET
BASS
TREBLE
SELECT
ACOUSTIC
MEMORY
ANP-1589
G
AWK

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

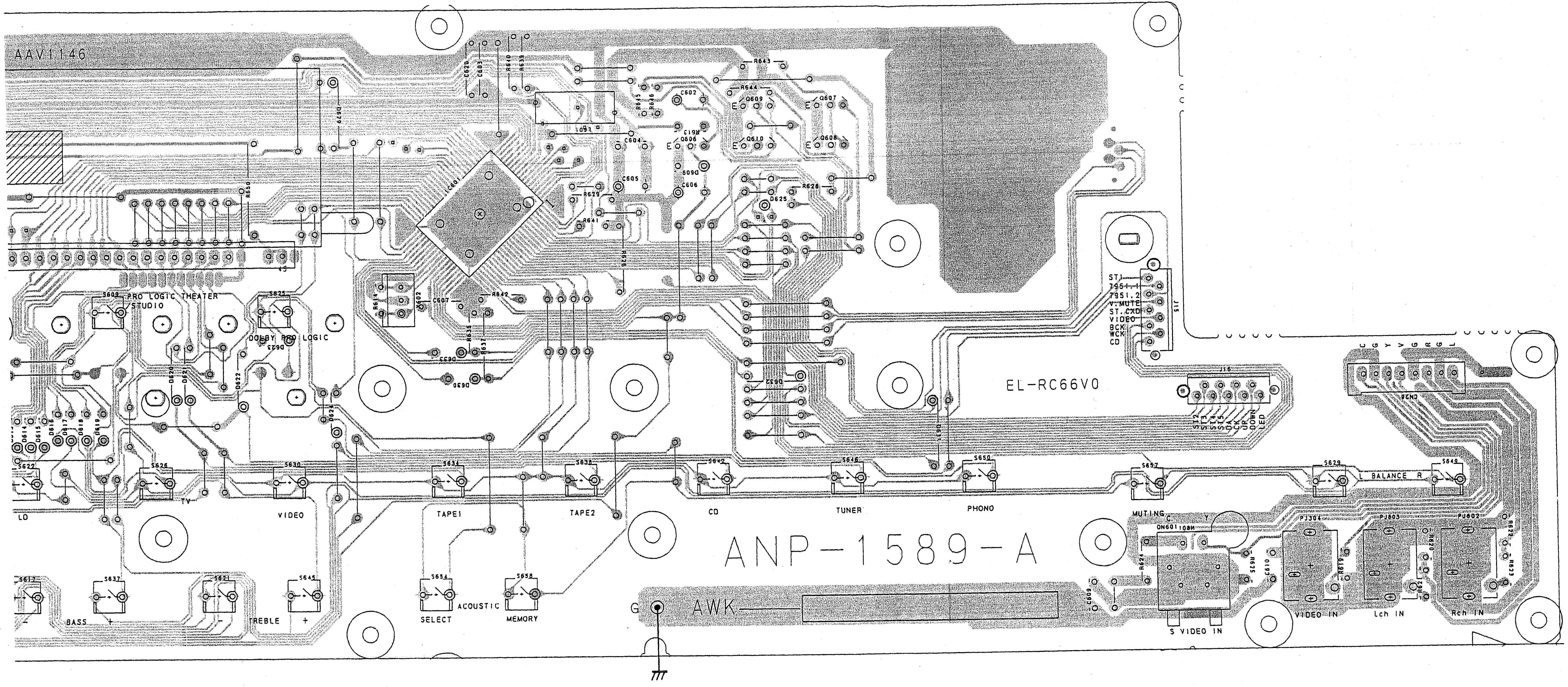
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E		Transistor
Q215		Radiator type transistor
D203	 D203	Diode
R237	 R237	Resistor
C513		Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

FL. U – COM assembly (AWK1560)


AAV1146
ANP-1589-A
EL-RC66V0
AWK
G
S609 PRO LOGIC THEATER STUDIO
S625 DOLBY PRO LOGIC
S626 TV
S630 VIDEO
S634 TAPE1
S638 TAPE2
S642 CD
S646 TUNER
S650 PHONO
S657 MUTING
S629 L BALANCE R
S649
LD
S637 BASS
S621 TREBLE
S645
S634 SELECT
S658 ACOUSTIC MEMORY
IC601
J15
ST1
7951.1
7951.2
V.MUTE
ST.CXD
VIDEO
BCK
WCK
CD
J16
ST2 ST3 ST4 ST5 DA CK UP DOWN LED
CN28
CN601 08M
PJ304
PJ803
PJ802
VIDEO IN
Lch IN
Rch IN
S VIDEO IN
R643
R644
C602
C607
Q609
Q607
Q610
Q608
Q606
C604
C605
C606
D609
Q625
R628
R629
R641
R642
R614
Q602
C620
C603
R610
R633
D679
R640
D622
D623
D630
D632
C690
D614 D615 D616 D617 D618 D619
S622
S617
R621
R619
R620
R622
R623
R625
R624
C609

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	or E E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

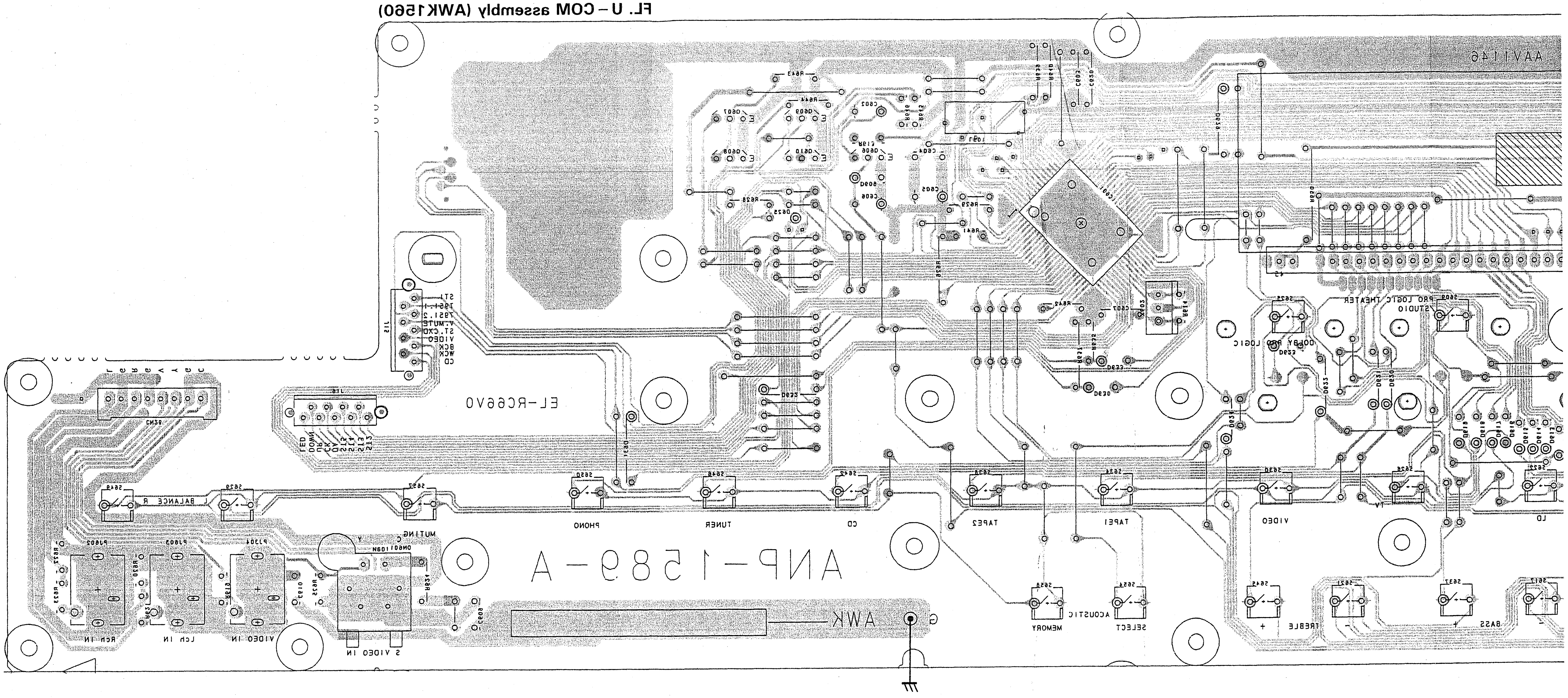
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capactor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

This PCB connection diagram is viewd from the parts mounted side.

FL. U-COM assembly (AWK1560)

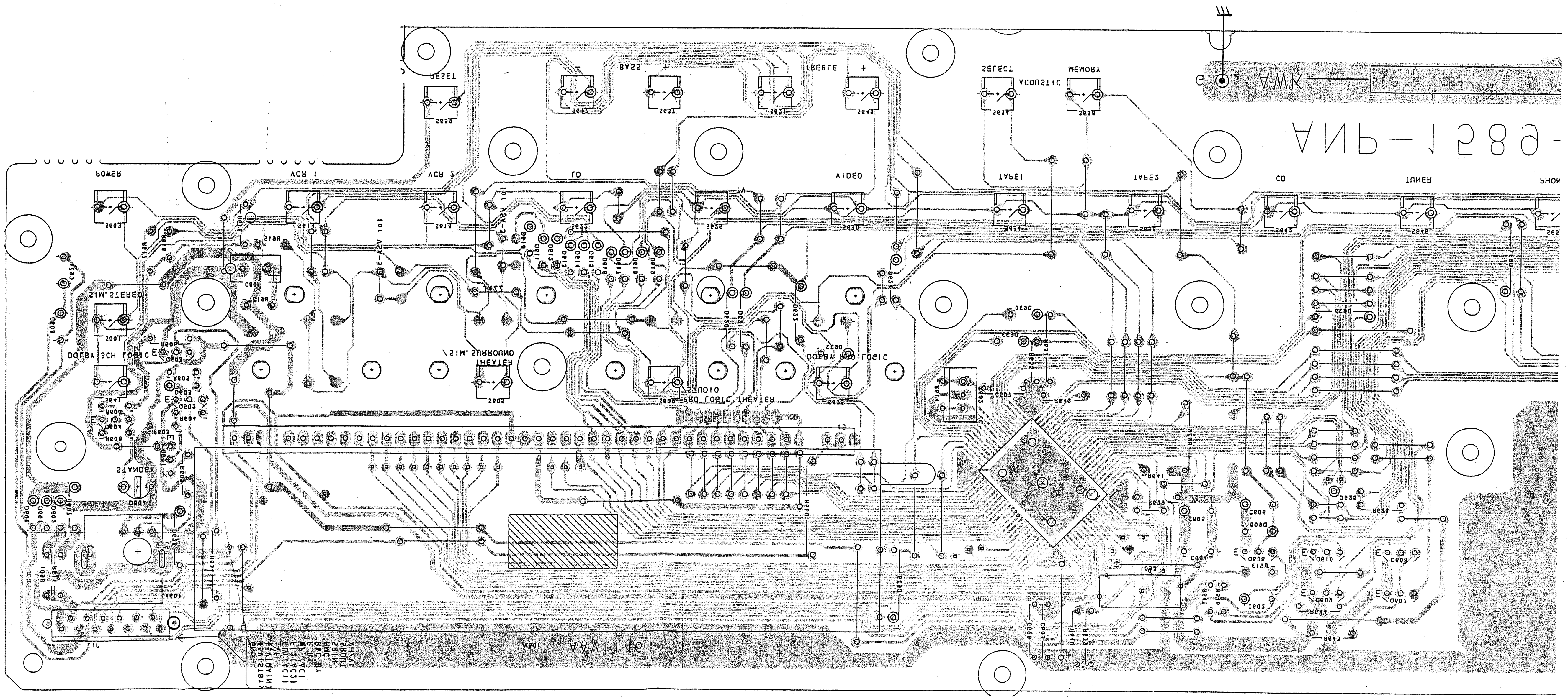

ANP-1589-A
EL-RC66V0
AWK
AAV1146
PHONO
TUNER
CD
TAPE2
TAPE1
VIDEO
TV
LD
MEMORY
SELECT
ACOUSTIC
TREBLE
BASS
BALANCE R
MUTING
S VIDEO IN
VIDEO IN
Lch IN
Rch IN
DOLBY PRO LOGIC
PRO LOGIC THEATER
STUDIO
ST1
FED
DOWN
UP
AD
CN3

This PCB connection diagram is viwed from the foil side.

1 2 3 4 5 6

D

C



POWER
VCR 1
VCR 2
LD
TV
VIDEO
TAPE1
TAPE2
CD
TUNER
RESET
BASS
TREBLE
SELECT
ACOUSTIC
MEMORY
AWK
ANP-1589
SIM. STEREO
DOLBY 3CH LOGIC
STANDBY
THEATER /SIM. SURROUND
JAZZ
STUDIO
PRO LOGIC THEATER
DOLBY PRO LOGIC
AAV1145
V601

B

A

FL. U-CO

1 2 3 4 5 6

4. REMOTE CONTROL UNIT [CU – VSA022 (AXD1283)]

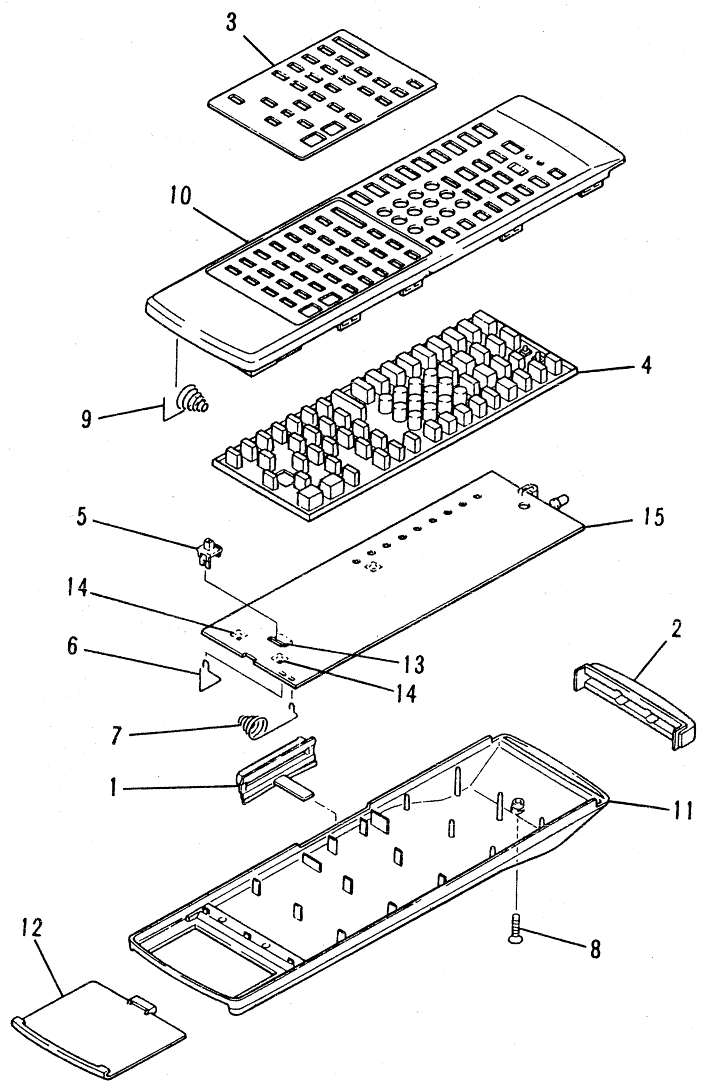
4.1 EXPLODED VIEW AND PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts list of Exterior

Mark	No.	Description	Parts No.
	1	MODE CHECK KEY	AZA1335
	2	FILTER	AZA1336
	3	PLATE	AZA1410
	4	RUBBER SHEET	AZA1366
	5	KNOB	AZA1349
	6	TERMINAL (+)	AZB1327
	7	TERMINAL (–)	AZB1328
	8	SCREW	AZB1329
	9	TERMINAL (C)	AZB1330
	10	CASE (A)	AZN2089
	11	CASE (B)	AZN2090
	12	BATTERY COVER	AZN2091
	13	SLIDE SW	AZS1117
	14	TACT SW	AZS1118
NSP	15	P. C. BOARD	AZW1130



4.2 PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56 × 10¹ → 561 .... RD1/8PM $\boxed{5}\boxed{6}\boxed{1}$ J
47kΩ → 47 × 10³ → 473 .... RD1/4PS $\boxed{4}\boxed{7}\boxed{3}$ J
0.5Ω → 0R5 .... RN2H $\boxed{0}\boxed{R}\boxed{5}$ K
1Ω → 010 .... RS1P $\boxed{0}\boxed{1}\boxed{0}$ K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62kΩ → 562 ×10¹ → 5621 .... RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ F

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC1	μ–COM	ACM001–030
	IC2	IC	AZC1564
	IC3	LOGIC IC	MC74HC138F
	Q1, 2	CHIP TRANSISTOR	2SC3052E
	Q3, 4	TRANSISTOR	2SD1622
	D1–6	DIODE	DWA010–TE
	D9–17	LED	AZC1573
	D7	LED	SLR–938C
	D8	DIODE	SPS–503C–3
CAPACITORS			
	C1, 2	CERAMIC CAPACITOR	CCDSL330J50
	C3	CERAMIC CAPACITOR	CCDSL221J50
	C4	CERAMIC CAPACITOR	CKDYX104M25
	C5	ELECT. CAPACITOR	CEAS470M10
	C6	CERAMIC CAPACITOR	CKDYB103K50
	C7	ELECT. CAPACITOR	CEAS221M10
	C8	ELECT. CAPACITOR	CEAS4R7M50
RESISTORS			
	R7, 8	CARBON FILM RESISTOR	RD1/4PMFL1R5J
		Other resistors	RD1/8PM□□□J
OTHERS			
	X1	RESONATOR	AZC1570

4.3 SCHEMATIC DIAGRAM

NOTE)

JP2 : The terminal for switching Fc (carrier frequency of the fixed code). This terminal is set at OPEN (Fc = 40kHz) when delivered. If a product of another manufacturer accidentally receives the PIONEER code, short the terminal so that Fc will be 36.7kHz. (In which case, the learned code and preset code do not change.)

JP3 : This remote control saves the learned data, timing data in ROM and other data (such as code data) in RAM. ROM already contains the timing data for other primary manufacturers. JP3 is a terminal for switching whether or not to use that pre-loaded timing data during learning.
This terminal is set at OPEN when delivered. If "data is learned but the product does not operate," there is the rare possibility that learned timing data is affected by the timing data for another primary manufacturer in ROM, causing the receiving product to be deactivated. In such a case, short JP3 to clear all the learned data and restart data learning, so that the data precision is increased. (In which case, the learned data in RAM is shared as is.)

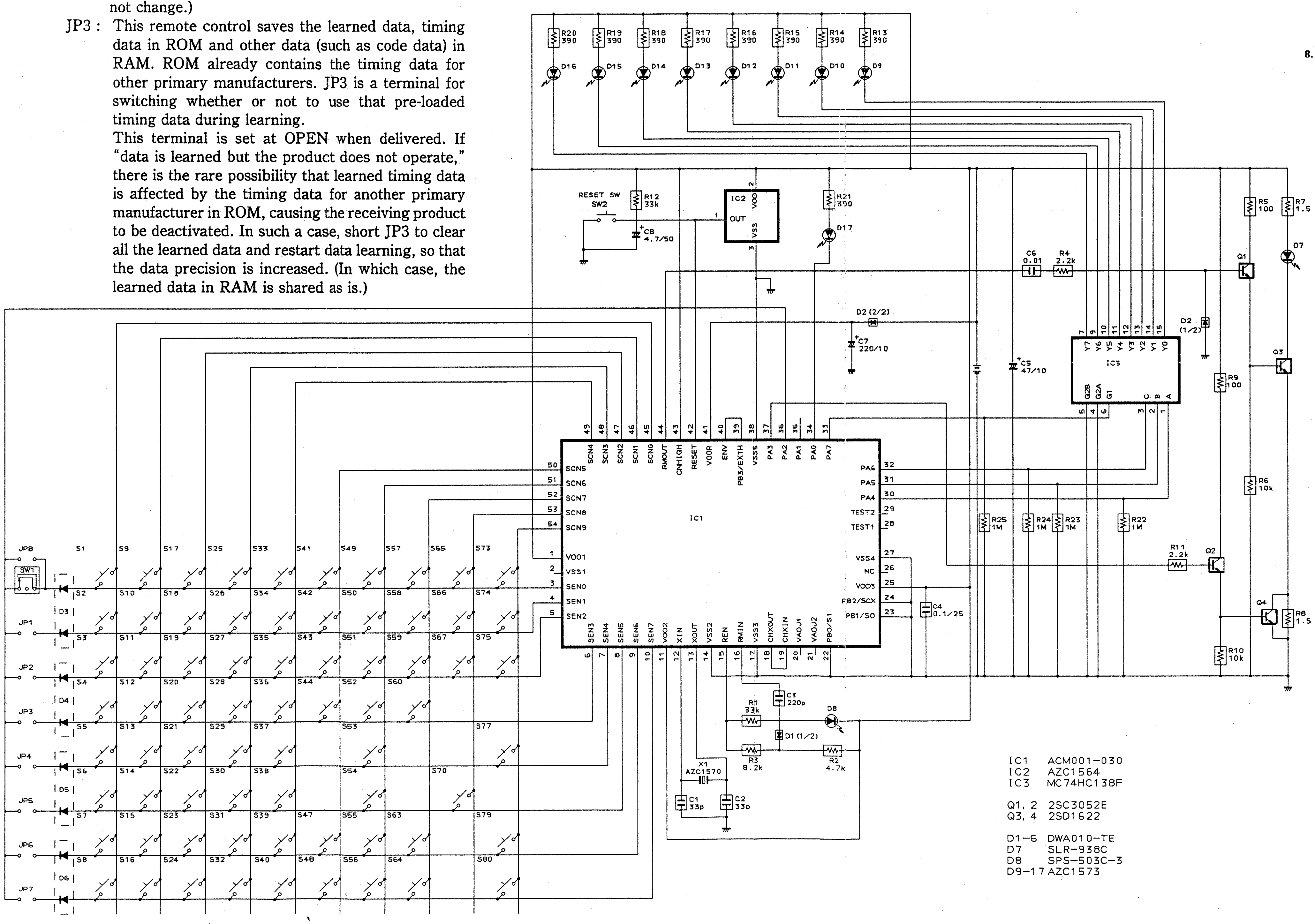
NOTE:

- ─▭─ : Indicates a chipresistor.
- ┼ : Indicates a chipcapacitor.
- ⊡ : Indicates a chiptransistor.
- ⊠ : Indicates a chipdiode.

Note: (Type 2)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭ : DC voltage (V) at no input signal unless otherwise noted.
   ⇦ mA or ← mA : DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ : Adjusting point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES** (Underline indicates switch position):

SW1 : CENT. · BAL./REAR·REAR BAL.
SW2 : RESET
S1 : VCR1
S2 : VCR2
S3 : LD
S4 : TV
S5 : CD
S6 : TUNER
S7 : DECK Ⅰ
S8 : DECK Ⅱ
S9 : DAT
S10 : MODE CHECK
S11 : LEARN
S12 : EDIT
S13 : MULTI COMMAND
S14 : M.CLEAR
S15 : POWER
S16 : ⏮
S17 : REC
S18 : ⏭
S19 : ⏪
S20 : ◀ (SEARCH)
S21 : ⏩
S22 : ⏸
S23 : ■
S24 : ▶
S25 : TV/VCR (+10)
S26 : SELECT (DISP)
S27 : TV FUNC (BAND)
S28 : 1
S29 : 2
S30 : 3
S31 : 4
S32 : 5
S33 : 6
S34 : 7
S35 : 8
S36 : 9
S37 : 10/0
S38 : 11/PGM
S39 : 12/CLEAR
S40 : CUSTOM (TV VOL+)
S41 : SCAN (TV VOL−)
S42 : FREQ CH (Λ)
S43 : FREQ CH (V)
S44 : AMP POWER
S47 : SLEEP
S48 : VCR1
S49 : VCR2
S50 : LD
S51 : TV
S52 : VIDEO
S53 : TAPE1/DAT
S54 : TAPE2/MONITOR
S55 : CD
S56 : TUNER
S57 : PHONO
S58 : SIMULATED STEREO
S59 : ACOUSTIC
S60 : VIDEO SIGNAL SELECT
S63 : SURR MODE
S64 : 3CH LOGIC
S65 : CENTER MODE
S66 : TEST TONE
S67 : MUTING
S70 : CENTER +
S73 : REAR L
S74 : REAR R
S75 : DELAY TIME
S77 : CENTER −
S79 : MASTER VOLUME +
S80 : MASTER VOLUME −



IC1
SCN4 SCN3 SCN2 SCN1 SCN0 RMOUT CNHIGH RESET VOOR ENV PB3/EXTH VSS5 PA3 PA2 PA1 PA0 PA7
SCN5 SCN6 SCN7 SCN8 SCN9 VOO1 VSS1 SEN0 SEN1 SEN2
PA6 PA5 PA4 TEST2 TEST1 VSS4 NC VOO3 PB2/SCX PB1/SO
SEN3 SEN4 SEN5 SEN6 SEN7 VOO2 XIN XOUT VSS2 REN RMIN VSS3 CHXOUT CHXIN VAOJ1 VAOJ2 PBO/S1
IC2 VOO OUT VSS
IC3 Y7 Y6 Y5 Y4 Y3 Y2 Y1 Y0 G2B G2A G1 C B A
RESET SW SW2
R12 33k
C8 4.7/50
R21 390
D17
C6 0.01
R4 2.2k
D2 (2/2)
D2 (1/2)
C7 220/10
C5 47/10
R20 390 R19 390 R18 390 R17 390 R16 390 R15 390 R14 390 R13 390
D16 D15 D14 D13 D12 D11 D10 D9
R5 100
R7 1.5
D7
Q1 Q2 Q3 Q4
R9 100
R6 10k
R25 1M R24 1M R23 1M R22 1M
R11 2.2k
R8 1.5
R10 10k
C4 0.1/25
R1 33k
C3 220p
D8
D1 (1/2)
R3 8.2k
R2 4.7k
X1 AZC1570
C1 33p
C2 33p
JP8 SW1 JP1 JP2 JP3 JP4 JP5 JP6 JP7
D1 D2 D3 D4 D5 D6
S1 S9 S17 S25 S33 S41 S49 S57 S65 S73
S2 S10 S18 S26 S34 S42 S50 S58 S66 S74
S3 S11 S19 S27 S35 S43 S51 S59 S67 S75
S4 S12 S20 S28 S36 S44 S52 S60
S5 S13 S21 S29 S37 S53 S77
S6 S14 S22 S30 S38 S54 S70
S7 S15 S23 S31 S39 S47 S55 S63 S79
S8 S16 S24 S32 S40 S48 S56 S64 S80

IC1 ACM001-030
IC2 AZC1564
IC3 MC74HC138F

Q1, 2 2SC3052E
Q3, 4 2SD1622

D1-6 DWA010-TE
D7 SLR-938C
D8 SPS-503C-3
D9-17 AZC1573

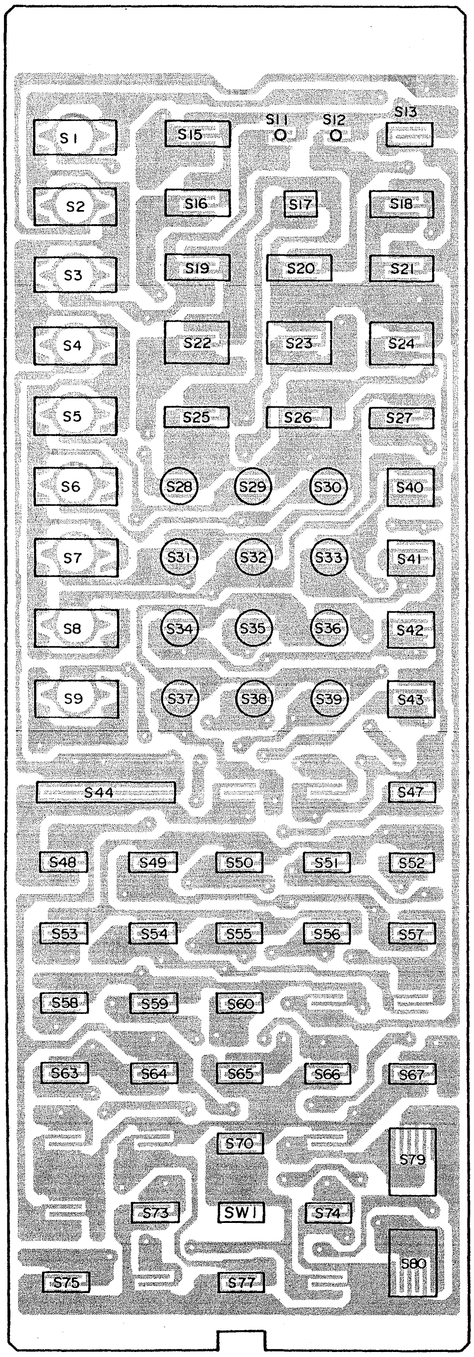
4.4 P. C. BOARD PATTERN

: Indicates a chip resistor.

: Indicates a chip capacitor.

: Indicates a chip transistor.

: Indicates a chip diode.


S1
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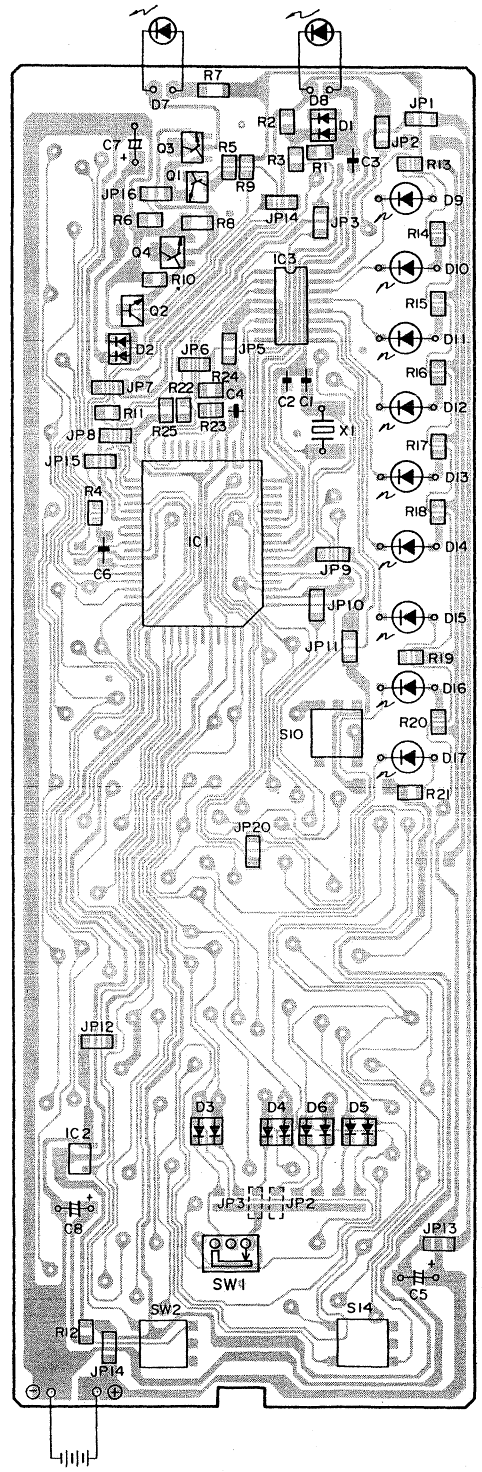
S66
S67
S70
S79
S73
SW1
S74
S80
S75
S77


R7
D7
D8
R2
D1
JP1
C7
Q3
R5
R3
R1
C3
JP2
R13
Q1
R9
JP16
D9
R6
R8
JP14
JP3
R14
Q4
D10
R10
IC3
R15
Q2
D11
D2
JP6
JP5
R16
JP7
R22
R24
C4
C2
C1
D12
R11
R25
R23
JP8
X1
R17
JP15
D13
R4
R18
IC1
D14
C6
JP9
JP10
D15
JP11
R19
D16
R20
S10
D17
R21
JP20
JP12
D3
D4
D6
D5
IC2
JP3
JP2
C8
JP13
SW1
C5
SW2
S14
R12
JP14